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NEARCTIC PASSERINE MIGRANTS IN SOUTH AMERICA

RAYMOND A. PAYNTER, JR.

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NEARCTIC PASSERINE MIGRANTS IN SOUTH AMERICA

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INTRODUCTION

For well more than half of each year, birds which have bred in the Nearctic, particularly Passerines, are a conspicuous, and sometimes major, element in some parts of the South American avifauna.

The purpose of this study is to catalogue the Passerines breeding north of Mexico that migrate to South America, to map their distribution on that continent, to determine their times of residency, and to try to interpret the significance of the geographical and temporal patterns that are found.

Information on Nearctic migrants was extracted from over 500 publications concerned with the distribution of South American birds.[1] In addition, some data were included from unpublished records obtained from museum specimens and computer printouts that had been studied in the course of other research. The material presented here is, with few exceptions, that which is accessible with reasonable diligence and that "lies in the public domain." It is, in essence, a summation of what is generally known at this time. There is, of course, hidden in collections and unpublished field notes much information that could supplement the data presented here, and future research will further fill gaps. It is questionable, however, if additional data will do more than refine what is already known. In other words, the picture has been sketched in outline; the details will come in the future.

In all, there are approximately 4,400 reports[2] of 68 taxa of Passerine migrants (Table 1) at about 1,260 different sites on continental South America (Fig. 1). A "report" is a record from a given site, usually with a specific date, although sometimes a date is lacking, the occurrence of the species spans a period greater than a single day, or even the exact locality is unrecorded although there is a date. Furthermore, a "report" might be of one bird, or several, or many.

Because of the variability of what constitutes a "report" and because of the variation between species in their behavior, conspicuousness, and numbers, it generally is necessary to be cautious in making comparisons between species based on the number of reports.

Another possible approach to analyzing the data is to examine the number of *localities* at which each taxon has been recorded (Table 2), but this also has its problems. For example, the Barn Swallow (*Hirundo rustica*) was seen at 202 widely distributed sites (Fig. 14), the most of any species, while the next most numerous, the Summer Tanager (*Piranga rubra*), was found at 187 locations, mainly at higher altitudes (Fig. 69). Interestingly, there were about 1.4 *reports*

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[1] Unless specifically referred to in the the text, these are not included in the Literature Cited section. A complete bibliography is on file at the Museum of Comparative Zoology.

[2] These are contained in a computer database, also permanently filed at the above institution.

Table 1. North American Passerine migrants in South America.

- TYRANNIDAE
  - Tyrannus tyrannus
  - Tyrannus dominicensis subsp.
  - Myiodynastes luteiventris
  - Myiarchus crinitus
  - Empidonax virescens
  - Empidonax traillii and E. alnorum
  - Contopus sordidulus
  - Contopus virens
  - Contopus borealis
- HIRUNDINIDAE
  - Tachycineta bicolor
  - Tachycineta thalassina
  - Riparia riparia
  - Hirundo rustica
  - Progne subis
  - Petrochelidon pyrrhonota
- MIMIDAE
  - Dumetella carolinensis
- TURDIDAE
  - Hylocichla mustelina
  - Catharus ustulatus
  - Catharus minimus
  - Catharus fuscescens
- BOMBYCILLIDAE
  - Bombycilla cedrorum
- VIREONIDAE
  - Vireo o. olivaceus
  - Vireo o. flavoviridis
  - Vireo altiloquus
  - Vireo flavifrons
  - Vireo philadelphicus
- PARULIDAE
  - Mniotilta varia
  - Protonotaria citrea
  - Helmitheros vermivorus
  - Vermivora chrysoptera
  - Vermivora pinus
- PARULIDAE (cont.)
  - Vermivora peregrina
  - Parula americana
  - Dendroica petechia (aestiva group)
  - Dendroica magnolia
  - Dendroica caerulescens
  - Dendroica coronata
  - Dendroica virens
  - Dendroica cerulea
  - Dendroica fusca
  - Dendroica dominica
  - Dendroica pensylvanica
  - Dendroica castanea
  - Dendroica striata
  - Dendroica discolor
  - Dendroica townsendi
  - Dendroica palmarum
  - Dendroica tigrina
  - Seiurus aurocapillus
  - Seiurus noveboracensis
  - Seiurus motacilla
  - Oporornis formosus
  - Oporornis agilis
  - Oporornis philadelphia
  - Geothlypis trichas
  - Wilsonia citrina
  - Wilsonia pusilla
  - Wilsonia canadensis
  - Setophaga ruticilla
- ICTERIDAE
  - Dolichonyx oryzivorus
  - Icterus spurius
  - Icterus galbula
- CARDINALINAE
  - Pheucticus ludovicianus
  - Guiraca caerulea
  - Passerina cyanea
  - Spiza americana
- THRAUPINAE
  - Piranga olivacea
  - Piranga rubra

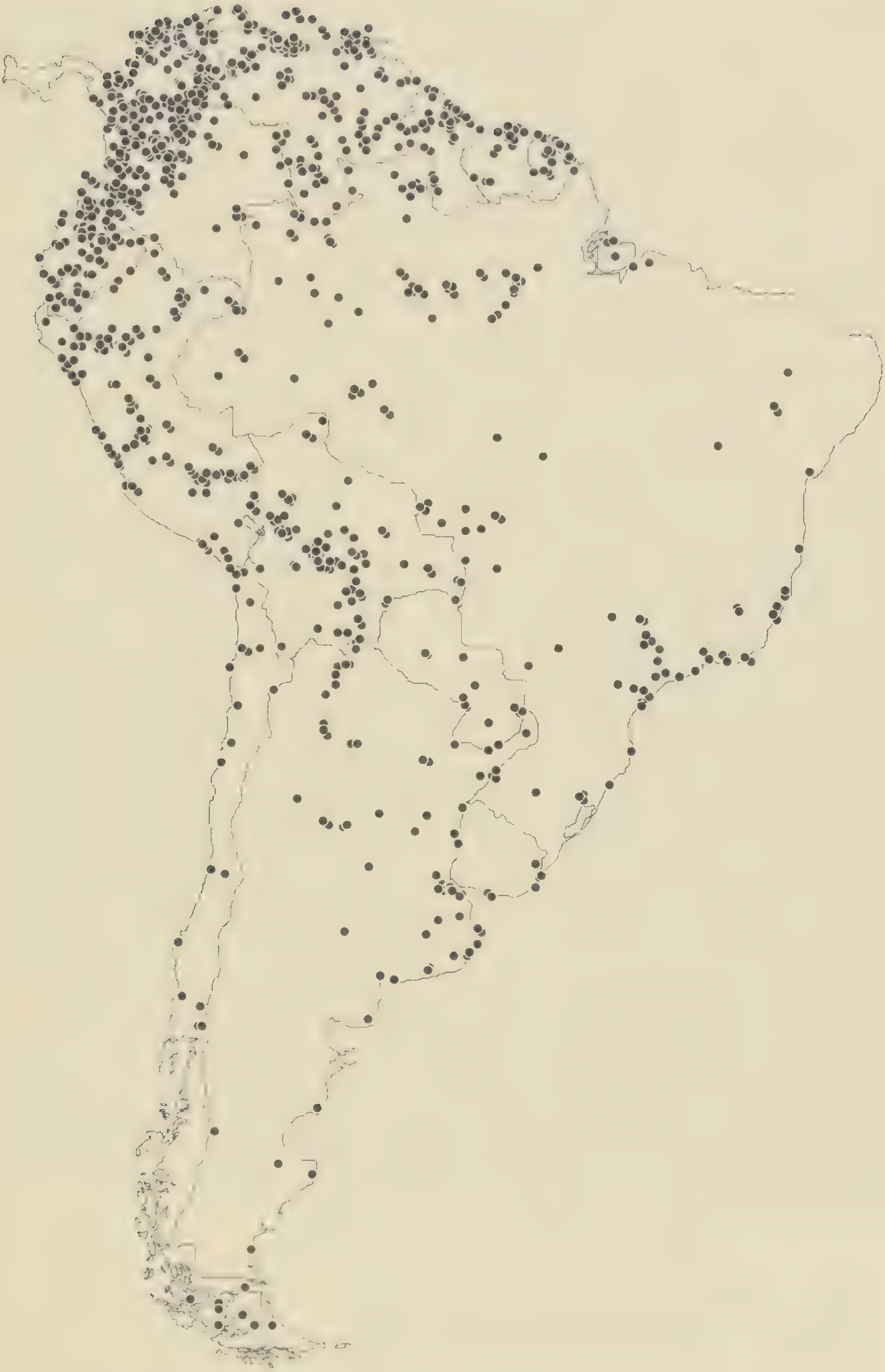

Fig. 1. Sites within South America from which North American Passerine migrants have been recorded.

from each site for each species (297 and 258 reports, respectively). If one looked only at the number of sites at which the birds were found, or even at the number of reports there were for each species, one would assume that the tanager is almost as abundant as the swallow. Nevertheless, the 258 reports of the arboreal, solitary tanager probably represent about the same number of individual birds while the 297 reports of the gregarious, conspicuous swallow may represent hundreds, if not thousands, of individuals.

Examining this further, it is evident that in order for a relatively uncommon, less conspicuous species to have been found at almost as many places as an abundant, conspicuous bird, the latter must in some way be restricted in its distribution, or perhaps be less accessible to observation. The situation found in the wide-ranging swallow and more restricted tanager would seem to contradict this postulation. However, the swallow is a species that is highly social, in contrast to the solitary tanager, and is found in open areas, often near water, which in general is a habitat more limited in its distribution than the vegetated regions preferred by the tanager. In brief, it seems that the swallow occurs widely but patchily, whereas the tanager has a narrower geographical range and is more evenly distributed within that range.

An additional, very important, set of variables concerns the distribution of the localities at which observations have been made and the timing and frequency of these studies. Although records of birds, both resident and migratory, have been obtained at about 20,000 locations on the continent over the past 350 years, these are not uniformly distributed; there is also enormous variation in the time observers spent at each site and when they were there (for details see the series, *Ornithological Gazetteers of the Neotropics,* Paynter, et al., 1981–1994). This sample of Nearctic migrants is, both spatially and temporally, crude, but these deficiencies should be somewhat offset by the large size and long time span of the sample. Nevertheless, it should be borne in mind that the ranges and dates of occurrences represent historic maxima and are not necessarily indicative of the present-day status of a given species.

Because of all these variables, comparisons based on the number of localities at which individuals have been found, by the number of times they have been recorded, or by their dates of occurrence may serve only as broad and general indications of intraspecific abundance, distribution, and timing; these data are too imprecise for detailed interspecific comparisons.

Table 2. Number of localities from which each taxon has been recorded.

1	Tachycineta thalassina	34	Myiarchus crinitus
1	Hylocichla mustelina	37	Spiza americana
1	Helmitheros vermivorus	38	Progne subis*
1	Vermivora pinus	38	Vireo o. flavoviridis*
1	Parula americana	42	Vireo altiloquus
1	Dendroica palmarum	43	Piranga olivacea
1	Dendroica townsendi	45	Empidonax virescens
1	Wilsonia pusilla	47	Catharus minimus
2	Dendroica dominica	48	Catharus fuscescens
2	Dendroica discolor	50	Dendroica castanea
3	Dumetella carolinensis	51	Vermivora peregrina
3	Bombycilla cedrorum	53	Dendroica cerulea
3	Dendroica coronata	54	Protonotaria citrea
3	Guiraca caerulea	56	Contopus borealis
4	Vireo philadelphicus	65	Mniotilta varia
4	Dendroica tigrina	65	Oporornis philadelphia
4	Geothlypis trichas	70	Pheucticus ludovicianus
4	Wilsonia citrinia	71	Petrochelidon pyrrhonota
5	Dendroica caerulescens	78	Tyrannus dominicensis
5	Dendroica virens	80	Riparia riparia
5	Seiurus aurocapillus	82	Empidonax traillii
6	Dendroica magnolia	86	Wilsonia canadensis
6	Dendroica pensylvanica	89	Contopus virens
8	Passerina cyanea	99	Dendroica striata
9	Tachycineta bicolor	99	Dolichonyx oryzivorus*
11	Seiurus motacilla	102	Tyrannus tyrannus
12	Oporornis formosus	122	Vireo o. olivaceus*
17	Vireo flavifrons	129	Setophaga ruticilla
19	Icterus spurius	130	Seiurus noveboracensis
21	Oporornis agilis*	132	Dendroica petechia
26	Myiodynastes luteiventris*	138	Dendroica fusca
26	Contopus sordidulus*	169	Catharus ustulatus
27	Icterus galbula	187	Piranga rubra
32	Vermivora chrysoptera	202	Hirundo rustica

* Winters exclusively in South America

SPECIES ACCOUNTS

Sixty-eight taxa of Passerines breeding north of Mexico have been found on continental South America (Table 1). These range from eight forms that have been recorded only at a single locality to nine taxa found at more than 100 sites (Table 2).

EASTERN KINGBIRD

Tyrannus tyrannus

The Eastern Kingbird breeds over most of southern Canada and all of the United States, except for the Pacific coast and the southwest. Migration occurs through eastern Mexico and Central America. The species winters mainly in South America east of the Andes (Fig. 2), with a few birds possibly as far north as Honduras.

The species is widely distributed in lightly wooded areas in and around the Andes of Colombia from sea level to 2,700 m. Wallace (1958:179) reported the species as only a transient at Popayán in the upper Cauca Valley and Hilty and Brown (1986:519) treat the species as a transient throughout Colombia, but it occurs in every month of the year except July and August, with the most frequent records in April and October, presumably during migration peaks. There were sightings at Santa Marta, Magdalena on June 1 (Hilty and Brown, 1986:516) and at Arboleda, Caldas on 25 June (Serna, 1980:61) that seem to have been birds that had failed to migrate.

The main wintering grounds and migration route of this flycatcher are on the western side of the continent, as there are to date only two widely separated records of the bird in Venezuela, four in three localities in coastal Guyana (one in July, two in November, and one with an unknown date), and a single February specimen from Suriname.

For Ecuador there are published observations for just three places, one on the western slope at 1,260 m, one on the eastern slope at 1,000 m, and one in the Amazonian lowlands at 300 m. Pearson (1972:11) places the species in the eastern lowlands from October to April but gives no details.

In Peru the Eastern Kingbird has been recorded from eleven localities, five to the west of the Andes on the coast and from six places in the eastern lowlands, at altitudes from sea level to 300–400 m, but once at 3,140 m. The high altitude record was of a May bird which may have been migrating. The studies by Hughes (1976) show the species to be a regular winter resident on the southern coast, although Parker, et al. (1982:68) indicate it is uncommon west of the Andes and common in the Amazonian lowlands. There is a report of the Eastern Kingbird near Lima in July (Mischler, 1986:266), again suggesting some birds may not migrate.

There are four specific localities at which this flycatcher has been found in central Brazil, with dates ranging from 11 October to 29 March. In spite of long-term observations in the vicinity of Manaus (Stotz, et al., 1992:615), the species has rarely been recorded there. Brazil, with the probable exception of its western edge, must be outside the main range.

Eastern Kingbirds have been more commonly recorded in Bolivia, having been found frequently in the lowlands of El Beni and Santa Cruz, at about 200–500 m, and on a few occasions in the Andes as high as 2,600 m in Cochabamba and 1,000 m in Tarija. The dates of occurrence are from 24 September to 2 February, but there is also a single specimen (Field Museum) from Cerro San Micerato, Santa Cruz taken on 14 June, once again hinting at some birds remaining during the austral winter.

The Eastern Kingbird is unusual in Chile, having been seen only at two localities in the north, one coastal and one from the interior, and also at Santiago, half-way down the coast, which is the southernmost record of the species. The latest date is 7 May, which is unexpectedly late and suggestive of a bird that had failed to migrate.

Kingbirds are said to winter in northern Argentina south to Tucumán, Chaco, and northern Corrientes (Canevari, et al., 1991:367). A recent discovery (Haene and Ostrosky, 1993) extends this to San Juan. There are, however, just five specific locations in northern Argentina, in the provinces of Salta, Tucumán, Misiones, Corrientes, and San Juan, where the species has been reported. It must be uncommon, if not rare. The dates recorded are in November, January, February, and March.

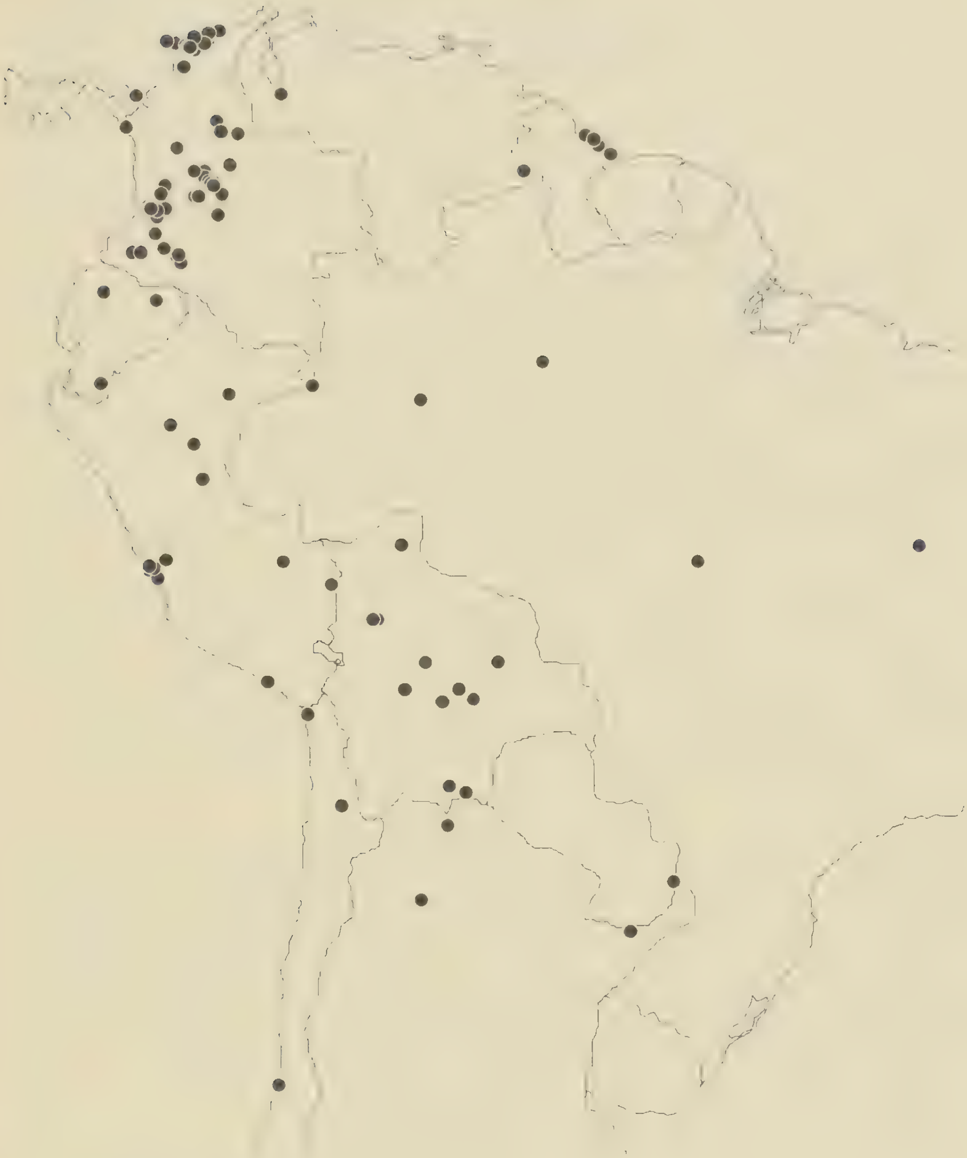

Fig. 2. Distribution of *Tyrannus tyrannus.*

GRAY KINGBIRD

Tyrannus dominicensis

The species breeds along the coast of the southeastern United States from South Carolina to Alabama, in the Antilles, on Trinidad and Tobago, and sometimes in the Caribbean lowlands of northeastern Colombia and on the llanos of northern Venezuela.

During the winter the species generally withdraws from the northern portion of its breeding range and is found mainly from Hispaniola southward to central Colombia, central Venezuela, and the Guianas (Fig. 3).

In Colombia the Gray Kingbird, which is a species of drier, open areas, breeds in May in Magdalena (Meyer de Schauensee, 1950:817) and in March and May in La Guajira (Hilty and Brown, 1986:520). Hilty and Brown (loc. cit.) suggest that the breeding birds may leave the Caribbean region during the summer months as they have only one late June record from here. Nonbreeding birds occur in the northern half of the country, rarely on the Pacific coast, and apparently equally rarely in the eastern llanos. It has been recorded as high as 3,000 m but most reports are from much lower altitudes. Although there are a substantial number of specimens of Gray Kingbirds known from Colombia, little is recorded about their dates of collection. Published records range from only 3 September to 3 April but Hilty and Brown (1986:520) extend this to late April or early May.

In spite of being a conspicuous and fairly common bird in northern Venezuela, very little has been recorded about it. It is known to have bred in Bolívar in April (Hellmayr, 1927:111) and in Guárico, also in April (Thomas, 1979:226) but, unexpectedly, there seems to be no authenticated report of it breeding nearer the Caribbean coast or on the offshore islands. Wintering birds, ranging up to 1,700 m, but generally much lower, occur across the northern half of the country to slightly south of the Río Orinoco. The dates range from 24 July to April. Birds taken on 24 July and on 12, 23, and 30 August on Isla de Margarita may have been breeders.

The situation in the Guianas is made less complex by the fact that the species does not appear to breed there. However, apparently the wintering population is *T. d. vorax,* the race of the Lesser Antilles (Traylor, 1979:227), rather than the nominate form.

In Guyana the Gray Kingbird is an abundant visitor in the coastal plain from October to May (Snyder, 1966:206). Howe and Singh (1960:92) give 12 May as the latest date.

There are no specific data from Suriname, although Haverschmidt (1968: 301–302) treats the species as a common migrant, resident from 27 September to 8 April.

Prior to the last decade the Gray Kingbird was known to occur in French Guiana but there were no details. Tostain, et al. (1992:158) have shown it to be a frequent visitor from August until an unknown date in the spring. Berlepsch (1908:125) cites only *T. d. vorax* from here.

There is a report (Moskovits, et al., 1985:65) of the Gray Kingbird as a rare visitant in northern Roraima, Brazil.

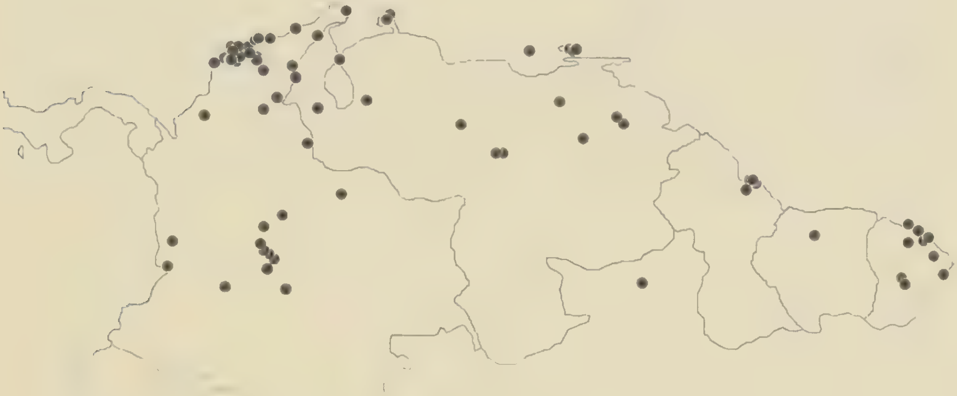

Fig. 3. Distribution of *Tyrannus dominicensis.*

SULPHUR-BELLIED FLYCATCHER

Myiodynastes luteiventris

The Sulphur-bellied Flycatcher breeds from southeastern Arizona down both coasts of Mexico, south to Costa Rica. It migrates through Central America, Colombia, and Ecuador, and winters in Peru and Bolivia, and possibly Colombia and Ecuador (Fig. 4).

In Colombia it occurs in open woodlands and edges (Hilty and Brown, 1986:515) from the Cauca Valley east to the eastern slopes of the Eastern Andes, from 300 to 2,600 m. There is no report from the Western Andes. Hilty and Brown (loc. cit.) consider the species to be an uncommon or rare transient. The few records with specific dates are for October and April-May. There are, however, two old specimens taken by Simons at Minca, Magdalena and at Manuare, Cesar (Sclater, 1888:184) that seem to extend the time the bird is present. Although Sclater (loc. cit.) gives no dates, it is known (Paynter and Traylor, 1981:154, 160) that Simons was at Minca from January to March 1879 and at Manuare from about 6 May to June 1878. The former specimen could represent an early transient, or even a winter resident, while the latter is certainly a late migrant.

The Ecuadorian records are even fewer. These are from the lowlands of Esmeraldas and Manabí in the west and from Napo and Pastaza in the east. The only dates available are for a specimen collected by Fraser at the city of Esmeraldas between October and December and one taken at Cordillera de

Balzar, Manabí by Illingworth in March (Sclater, 1888:184; Paynter, 1993:17).

All eight site records for Peru are from the eastern side of the Andes from 300 to 1,050 m. Data for the time the species is present are sparse, extending from 30 August to 2 October and again on January 30.

A sighting in February 1992 extends the range to Acre, westernmost Brazil (Ridgely & Tudor, 1994:666).

Bolivian reports are from the lowlands to the east of the Andes from about 175 to 400 m. The dates, of which there are few, range from 14 October to 23 February.

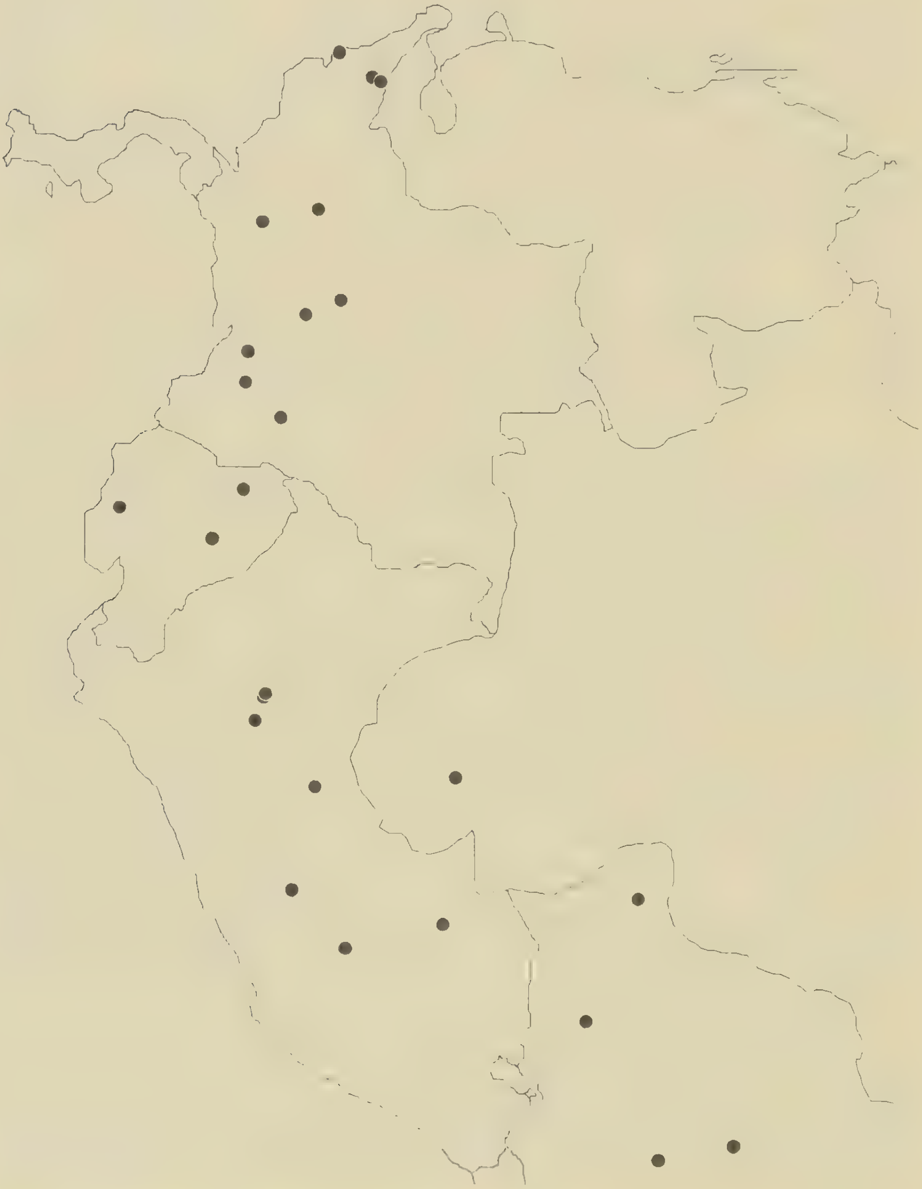

Fig. 4. Distribution of *Myiodynastes luteiventris.*

GREAT CRESTED FLYCATCHER

Myiarchus crinitus

This species breeds in eastern North America from Alberta across the southern edge of Canada south to Texas and Florida. In the winter it occurs from southern Florida, Cuba, and southern Mexico south to northern South America (Fig. 5).

Hilty and Brown (1986:512) say that in Colombia the species is an uncommon winter resident in humid forest edges and second growth from mid-October to early May. Our nearly 40 records indicate it is perhaps somewhat

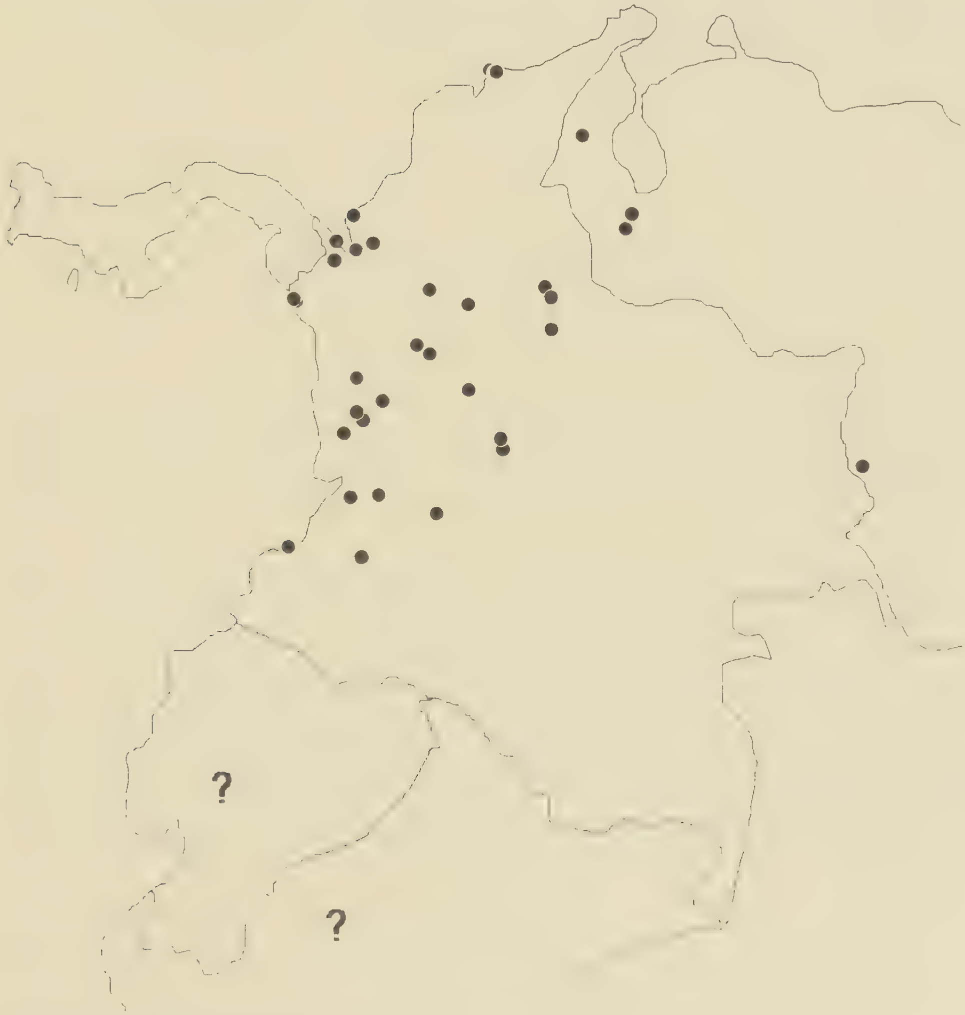

Fig. 5. Distribution of *Myiarchus crinitus*.

more abundant than previously believed. The records also confirm the range of dates given, but there is one record of a bird at Palermo, Antioquia on 17 June (Serna, 1980:65), suggesting that this was a bird that failed to migrate, or that possibly it was a misidentified local species.

The species has been found from the Pacific lowlands east to the tablelands of the Eastern Andes, up to nearly 2,600 m. It probably will also be found on the eastern side of the Eastern Andes.

There are four records of this flycatcher from western Venezuela, viz., one from Zulia, two from Mérida, and one on the upper Río Orinoco, Amazonas. The altitudes range from close to sea level up to 1,465 m. Meyer de Schauensee and Phelps (1978:257) place it here from mid-October to the end of March, but we can find no published specific dates.

Hilty and Brown (1986:512) and Ridgely and Tudor (1994:47) indicate that there are a few records of the Great Crested Flycatcher from Napo, Ecuador, but again we can find no published details and therefore it is not shown on our map. Fjeldså and Krabbe (1990:521) describe its habitat as ranging from semi-arid and dry forest to tall dense forest and report it, again without details, as accidental in northern Peru; again this is not shown on our map.

ACADIAN FLYCATCHER

Empidonax virescens

The Acadian Flycatcher breeds in the eastern United States from South Dakota east to New Hampshire and south to southern Texas and central Florida. It migrates through the Caribbean slope of Mexico, Guatemala, and Honduras, and winters from Nicaragua through Panama to northeastern South America (Fig. 6).

The primary winter quarters for this species appears to be Colombia, from where there are 50 records, mainly to the west of the Western Andes, in the northern foothills, between the Western and Central Andes and to the east of the Eastern Andes, although there are a few reports from high in the Eastern Andes (e.g., Laguna de Pedropalo and Fusagasugá, Cundinamarca). Altitudes range from close to sea level in Chocó to over 2,800 m in Boyacá, but most reports are from below 1,200 m. It is found in the understory in humid forest or second growth (Hilty and Brown, 1986:496). The species occurs in

Colombia from October (Orejuela and Cantillo, 1982:133) to 2 April (Nicéforo and Olivares, 1975:13).

This flycatcher occasionally reaches the western border of Venezuela in the Sierra de Perijá and the northernmost Andes at moderate elevations. Meyer de Schauensee and Phelps (1978:259) give its dates as November to March.

There are a few records from Manabí and Esmeraldas in the lowlands of northwestern Ecuador; Ridgely and Tudor (1994:573) include northwestern Azuay, without specific details. The documented reports are for November and January and are insufficient to define the wintering period. Hilty and Brown (1986:496) place eastern Ecuador within the species range; it is to be expected there.

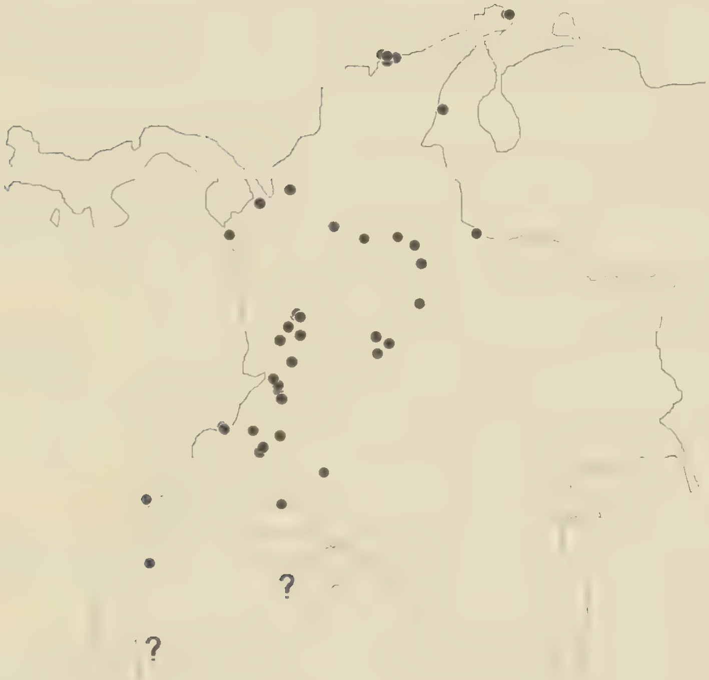

Fig. 6. Distribution of *Empidonax virescens*.

WILLOW FLYCATCHER; ALDER FLYCATCHER

Empidonax traillii; E. alnorum

The Willow Flycatcher and the more northern Alder Flycatcher form a superspecies that breeds from Alaska and northern Canada through the contiguous United States, except for the southern tier. The two species, which are difficult to differentiate except by voice, are treated here as a single unit wintering from southern Mexico to Argentina (Fig. 7). It has been suggested (e.g., Hilty and Brown, 1986:496) that the more northern taxon (*alnorum*) winters principally in South America whereas *traillii* is a Central American and Mexican winterer. Although likely, until careful fieldwork is done this will remain unproven.

This taxon seems to be fairly common in Colombia (39 records at 36 sites), occurring in brushy vegetation in the Caribbean lowlands, on the slopes generally well below 1,000 m, in the northern portion of all three Andean ranges, and far up the Río Magdalena valley. There are no records from the Pacific slope and none on the eastern slope of the Eastern Andes, although there is a single record from the llanos and several at high altitudes on the Sabana de Bogotá in the tableland of the Eastern Andes. Strangely, there are no reports from the southern third of the country, south of Villaviejo on the upper Magdalena, although the bird occurs south of here from Ecuador to Argentina.

In Colombia one or the other of these species has been recorded from 15 August to 28 April; Ridgely and Tudor (1994:572) extend this to May. The former record, a month earlier than any other report from elsewhere on the continent, hints at summer residence. Doubtless some of the early and late reports are of transients to or from farther south.

In Venezuela the taxon, which seems to be uncommon, is confined to elevations below 250 m in the westernmost region from Zulia south to Táchira and western Apure. Meyer de Schauensee and Phelps (1978:259) say it occurs from August to February, but surely it must be present at least another two months in the spring.

Reports from Ecuador are sparse, with but five localities/records. It is known to be present both in the western lowlands and in the Amazon region. The few data indicate it is present from September to April.

There is only a single record for this flycatcher on the Pacific side of the Peruvian Andes, viz., a mid-December bird from coastal Chilca (Plenge, 1974:328), but there are several from the eastern slopes and lowlands, as well as one from 3,400 m in Cuzco. There are numerous reports (e.g., Stotz, et al., 1992:616) that *E. alnorum* is the species in Amazonian Peru. The records range from 11 October to 4 April.

Single individuals of this flycatcher have been found in mid-winter at Santarém and Manaus, Brazil (Sick, 1985:597; Stotz, et al., 1992:616). The latter was identified, by voice, as *E. alnorum.*

In Bolivia there are records of about 22 sightings at 13 localities, all in the eastern lowlands from Pando to Chuquisaca. The records extend from 14 October to 10 April.

This flycatcher is apparently rare in northern Argentina, where there are seven records for Jujuy, Salta, and Tucumán, all below 800 m (Camperi, 1986). The dates range from 16 November to 23 March. Narosky & Yzurieta (1988:225) show the taxon as being in Misiones, but without documentation. Olrog (1979:219) considers this to be a regular visitant.

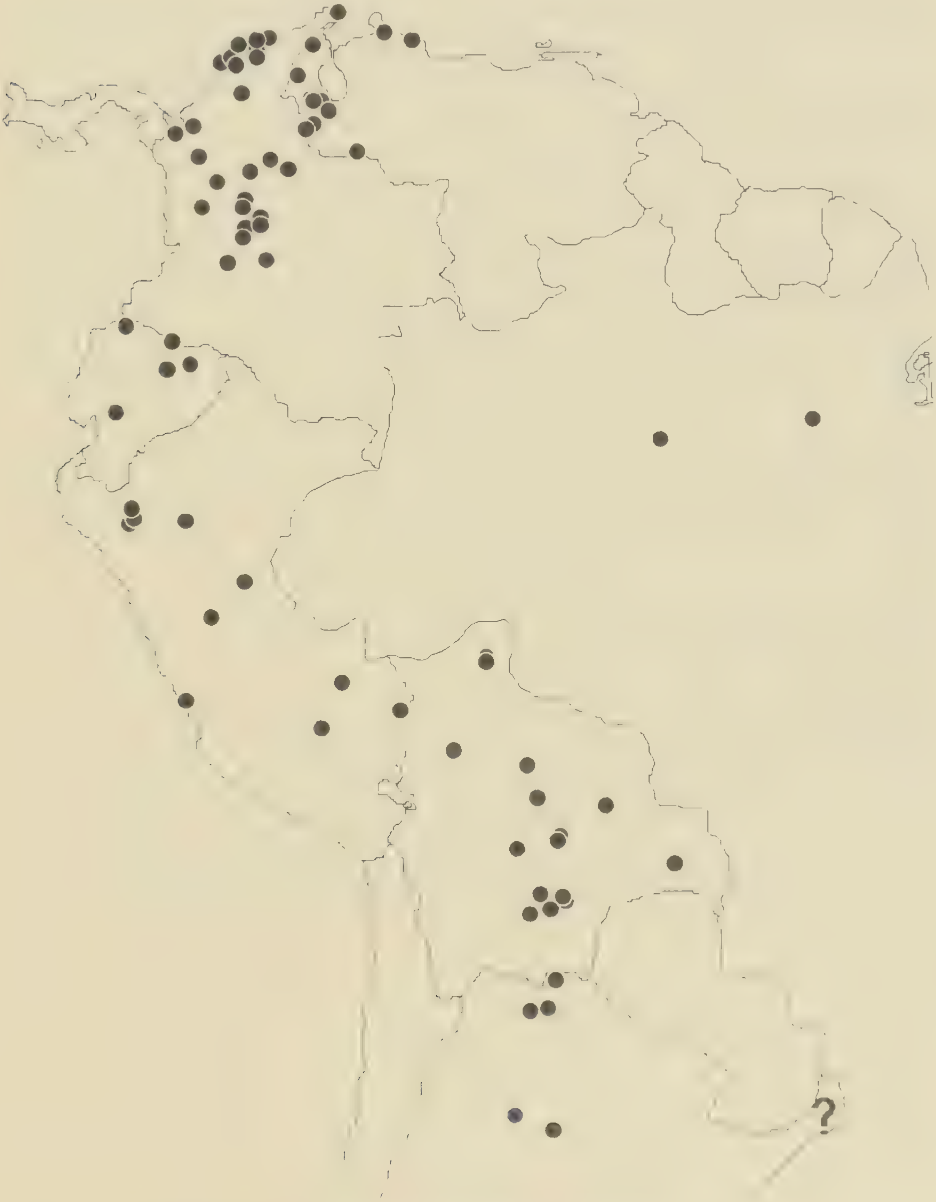

Fig. 7. Distribution of *Empidonax traillii* and *E. alnorum*.

WESTERN WOOD-PEWEE

Contopus sordidulus

The Western Wood-Pewee breeds in the western part of the North American continent from Alaska to Manitoba and southward through the western half of the United States and in the highlands of Mexico, Guatemala, and Honduras, possibly to Nicaragua. It migrates throughout Middle America to winter in northwestern South America (Fig. 8).

This species appears to be less common in its winter quarters than is the closely related Eastern Wood-Pewee (*C. virens*), although the sparsity of reports of *sordidulus* may have resulted from birds being misidentified as *virens*. At times both species have been found at the same locality (e.g., Loma Hermosa and near San Agustín, Colombia, at the towns of Esmeraldas and Zamora, Ecuador, and at Vista Alegre, Peru). It generally occurs in disturbed, thin forests. In Colombia it has not been found in the lowlands either east or west of the Andes, but it does occur within the Andean ranges, generally at moderate elevations in lightly wooded areas. It is notable that there are aiso no records in the northern part of the country, as though these migrants overshoot that region. The bird is know from mid-September until May, with one curious record from July at Sasaima, Cundinamarca, on the western slope of the Central Andes (Nicéforo and Olivares, 1975:12). Perhaps this is a misidentification of the Tropical Pewee (*C. cinereus*). It has been found only as a transient in disturbed cloud forest at about 2,000 m in the Western Andes (Miller, 1963:31), although in virtually the same region, but lower and in less cut-over forests, winter residency has been noted (Hilty, 1980:267).

There are only two widely separated records for Venezuela, one in early April on the Brazilian border and another in late February in the region of table mountains in southeastern Bolívar.

In Ecuador there are a half dozen records from the coastal lowlands to the eastern slopes. These range from September to March. For Peru there are three records (one unplotted on map because the geographical coordinates are lacking) from the central region, within the mountains, and in Bolivia there are six records from three localities ranging from 196 to 2,557 m. All, as far as known, are October and December records except for a bird taken on 10 April.

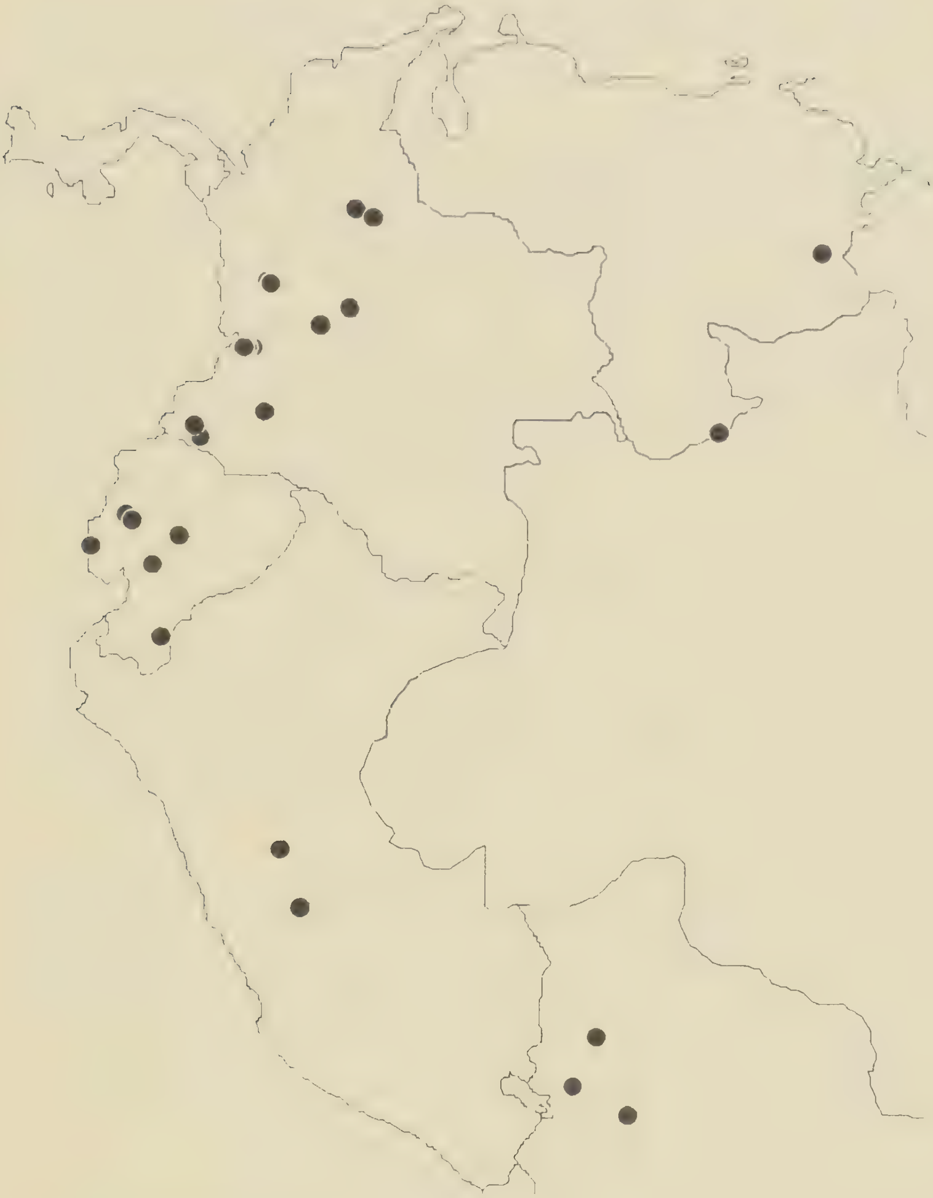

Fig. 8. Distribution of *Contopus sordidulus.*

EASTERN WOOD-PEWEE

Contopus virens

The Eastern Wood-Pewee breeds in eastern North America from Saskatchewan across southern Canada and south to the Gulf coast. It migrates through Central America and the northern Antilles to the northern half of western South America. It may occasionally winter in Costa Rica and Panama but its range is primarily in South America (Fig. 9).

This is an abundant bird in Colombia, occurring in lightly wooded regions in the northern lowlands and from the eastern base of the Eastern Andes westward through all three ranges from sea level to an extreme of 2,800 m, but most records are lower. It is present from 28 September to 10 May. In the early and late parts of this period it is impossible to distinguish transients from winter residents, although there are more records from March and October than from other months, suggesting these are peak migration times.

In Venezuela there are records in the mountains, up to 1,700 m, from Zulia, Falcón, Mérida, and Táchira and reports from single sites at the northwestern edge of the Guiana Highlands in Bolívar and from the lowlands of northeastern Amazonas. There is little information on the time during which the species is found. Phelps and Phelps (1963:192) give a range from September to April.

The species is recorded in Ecuador from late October to mid-April and on both slopes of the Andes up to about 1,200 m, as well as in the Pacific and Amazonian lowlands.

There are relatively few records from Peru, although it is said (Parker, et al., 1982:65) to be fairly common in the eastern lowlands. Interestingly, although in Ecuador the species is found on the Pacific as well as the Amazon slope, in Peru it occurs only on the Amazonian slope up to 1,350 m. Again, there are few specific dates given in the literature. Those that are available range from mid-October to April.

In Bolivia there are several records, only in Beni, from 14 October to 15 November, at an altitude of 176 m (Pearson, 1975:96).

The southernmost record from the continent is in Argentina where a male and a female were collected in Salta on 12 September (Hoy, 1981:43), the earliest documented fall record from the continent; no other Argentinean reports are known.[1] These circumstances are suggestive of birds that were disoriented and migrated south, rather than north, at the end of the boreal winter. That there should be two birds, a male and a female, together at the same time so far from the usual range is food for speculation.

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[1] Hoy (loc. cit.) identified these birds as *C. virens* but, as pointed out by Ridgely and Tudor (1994:577), Hoy may have considered *C. sordidulus* conspecific with *C. virens*. These may, therefore, be referrable to *C. sordidulus*, in which they were placed by Ridgely and Tudor (loc. cit.) on geographical grounds.

The species was first found in Brazil in 1936, although the specimen was misidentified as *C. cinereus* until 1992 (Stotz, et al., 1992:616). During the past few years the Eastern Wood Pewee has been seen at five additional western Brazilian sites, generally on the edges of forest, between 11 October and 13 March. The most recent report is for a specimen collected on 24 March 1989, in Cearé, far to the east of previous records. The species is certainly uncommon in Brazil. The recent proliferation of sightings is without doubt due to an increase in highly-skilled observers rather than to any change in the bird's winter range.

The first of the three reports from French Guiana dates back only to 1982 (Tostain, et al., 1992:150). Again this appears to be an uncommon and easily overlooked species that requires a skilled observer to find.

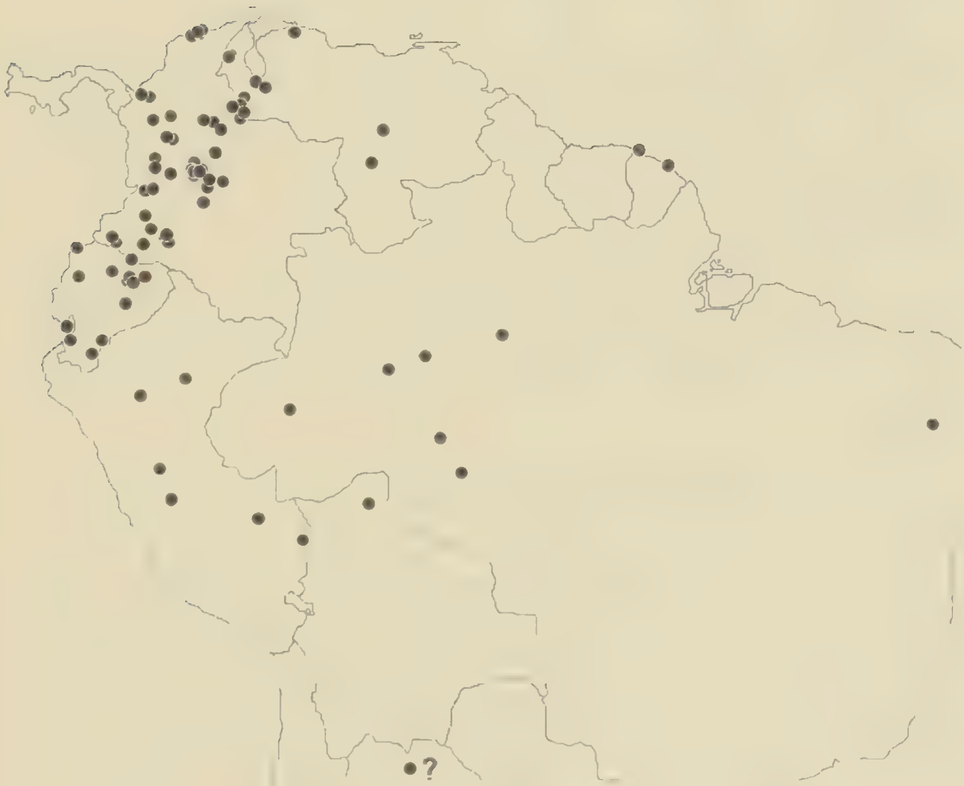

Fig. 9. Distribution of *Contopus virens*.

OLIVE-SIDED FLYCATCHER

Contopus borealis

The Olive-sided Flycatcher breeds from central Alaska east across central Canada and south to the northern United States, except in the Rockies, and westward where it extends south almost to the Mexican border. It migrates through Mexico and Central America to winter in South America (Fig. 10), very occasionally north in Middle America.

It seems to be a fairly abundant visitor in lightly forested areas and edges in Colombia, occurring on all three Andean ranges and on the Sierra Nevada de Santa Marta, from about 27 August to 13 May. Hilty and Brown (1986:494) also report one from early June. Although the data are few, the species seems more abundant in the fall until mid-November and in the spring from March onward. This is as one would expect with migrants passing through going to or coming from farther south. Miller (1963:30), for example, found the species absent in the winter in the cloud forest of the Western Andes but it was present in the fall and spring. It ranges from 400 to 2,600 m, but most records are from above 1,000 m.

In Venezuela, where it apparently is much less common, it has been found in the coastal ranges from Miranda westward, in the Sierra de Perijá, and in the Andes of Mérida and Táchira. Meyer de Schauensee and Phelps (1978:258) indicate it is sometimes found as low as 400 m, but all the published records are from above 900 m to about 2,100 m. Reports, which are scanty, extend from 28 October to 14 April.

Within the Guianas the species has been reported (Parker, et al., 1993:57) as rare in southern Guyana and has been found once in Suriname, on 15 March 1977 (Davis, 1979:145) and three times in French Guiana (Tostain, 1992:151) where in 1989 a single bird was collected on an unknown date in March, three more were seen on 27 March, and on 4 April the following year another was observed.

The species has been found at three localities in northern Brazil, viz., in Roraima at Apiaí and in Amazonas at Itacoatiara and in the vicinity of Manaus. Stotz, et al. (1992:615) indicate that the Olived-sided Flycatcher is a regular but rare visitor around Manaus. There is a 30 October 1989 record from northern Mato Grosso. Far to the south in Brazil, in Rio de Janeiro and São Paulo, there have been a number of sightings at altitudes ranging from 850 to 1,400 m (Willis, et al., 1993:193); all of these are from the last decade, leading Willis, et al. (1993:193) to speculate that the recent discovery of the Olive-sided Flycatcher in a previously well-studied region may indicate a change in the wintering habits of the bird. However, it is equally plausible that recent observers, alerted to the possible presence of this flycatcher simply scrutinize the avifauna more carefully than did the earlier collectors.

In Ecuador the species has been seen only at one site in the Amazonian lowlands, but the frequency with which it is found and when it occurs there is unrecorded (Pearson, 1980:277).

Olive-sided Flycatchers have been reported in Peru at six sites, one on the Pacific coast and the others on the lower eastern slopes or interior lowlands. The dates range from 29 October to 5 March.

The species has been found at three widely separated Bolivian localities on the middle and lower slopes of the Andes in November and January.

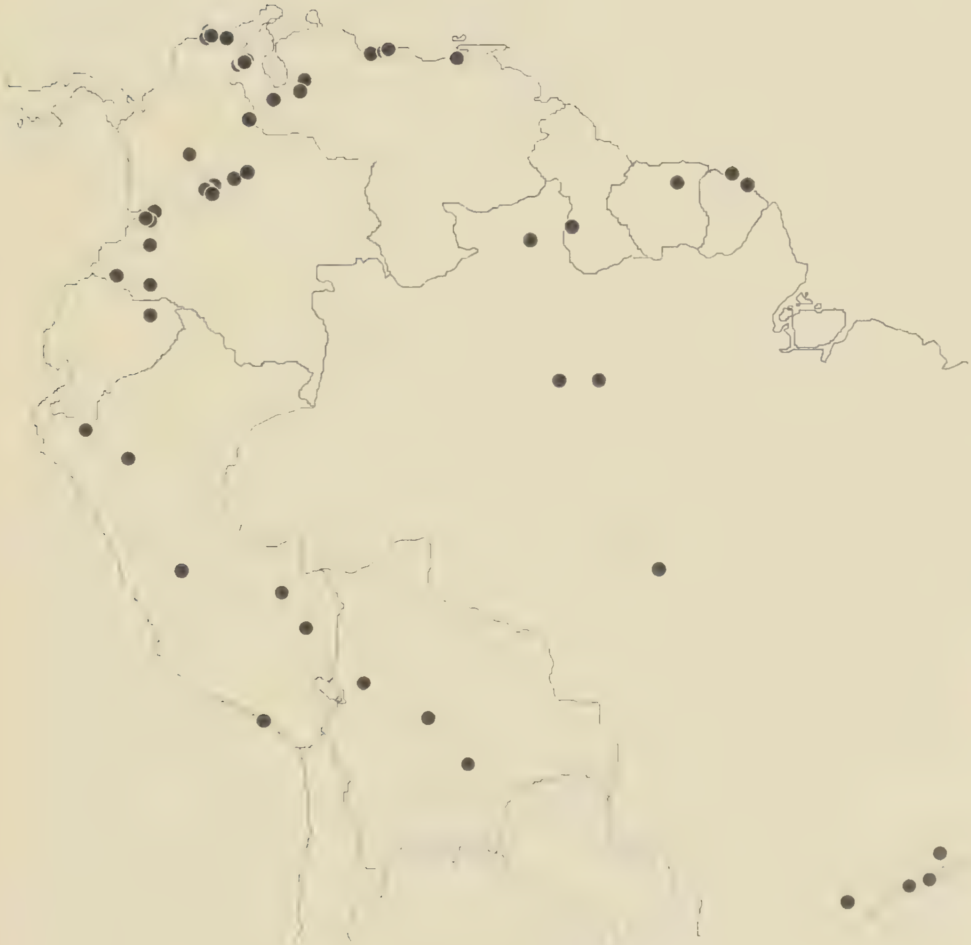

Fig. 10. Distribution of *Contopus borealis*.

TREE SWALLOW

Tachycineta bicolor

The Tree Swallow breeds over most of Alaska and Canada south to the south-central part of the United States. It winters from the southern edge of the United States through Mexico, except for the southeastern portion, and through Central America, becoming much less frequent in its more southern distribution. It rarely occurs in northern South America (Fig. 11).

Tree Swallows have been seen at four places in Colombia, from sea level to 2,900 m, and from 28 December to 15 February. There are reports from Chichiriviche, Falcón, Venezuela in January and February where it seems to occur regularly during the winter (Gochfeld, et al., 1980:199; Hilty and Brown, 1986:522). There are several recent records from four localities in French Guiana ranging from 1 January to 6 May (Tostain, et al., 1992:161). The May date is unexpectedly late and may have resulted from a misidentification.

Presumably until recently the species has been overlooked, or confused with the White-throated Swallow, the resident species of *Tachycineta*.

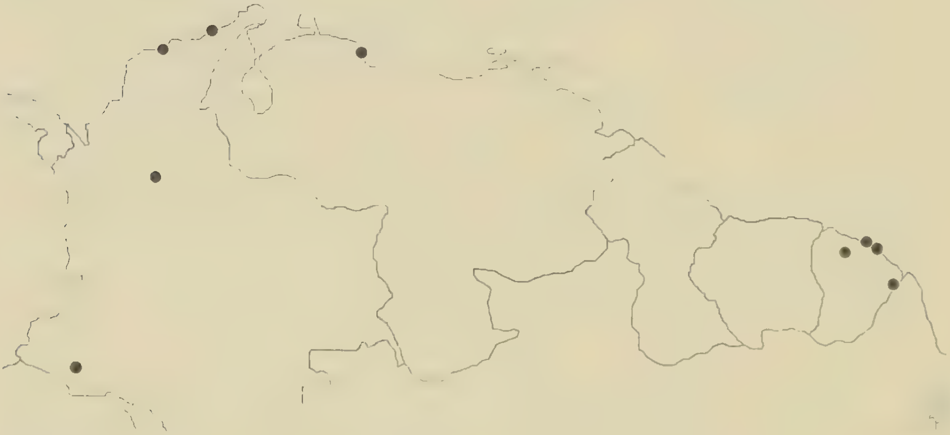

Fig. 11. Distribution of *Tachycineta bicolor*.

VIOLET-GREEN SWALLOW

Tachycineta thalassina

The Violet-green Swallow breeds from Alaska down the western side of the continent to southern Mexico. In the winter it occurs from southern California through the highlands of Mexico to Honduras and irregularly to Panama.

There is a sight record by Whitney and Ridgely of two birds over Cuchilla San Lorenzo in the Nevada de Santa Marta, Magdalena, Colombia (Fig. 12), on 22 January 1983 (Hilty and Brown, 1986:522).

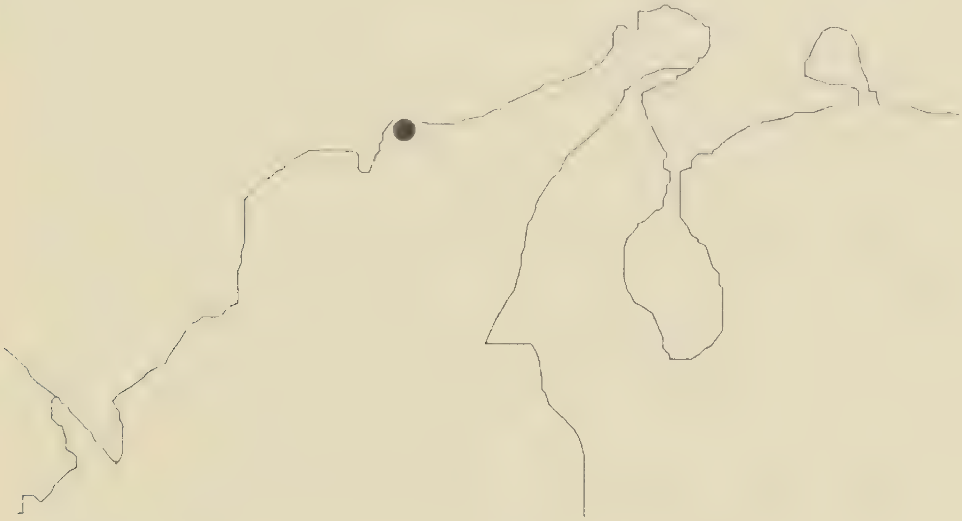

Fig. 12. Distribution of *Tachycineta thalassina.*

BANK SWALLOW

Riparia riparia

The Bank Swallow is widespread in northern Europe and Asia and also breeds over most of Canada and the United States, except for the southern third. On migrations it passes through the West Indies and Middle America. It winters in South America (Fig. 13), rarely north to Panama (Ridgely and Gwynne, 1989:335). Stotz, et al. (1992:616) suggest the main winter quarters are in Amazonia because there are relatively few reports of the species from farther south.

The species seems to be only a transient in Colombia, occurring from near sea level to 2,800 m. It has been noted from 10 September to an undefined date in mid-October and from 6 February to 5 May.

In Venezuela it has been treated as a transient by Meyer de Schauensee and Phelps (1978:286) who report it, without documentation, at several places on the northern coast; inland there is a record for Zulia but, again, with an unrecorded date (Phelps and Phelps, 1963:254). However, the species is known to winter in central Venezuela, as Thomas (1994:550) has seen it in Guárico in December, January, and February, and also as late as 26 April. To the south the species has been found at 2,000 m on Cerro de la Neblina in October (Willard, et al., 1991:50).

Bank Swallows have been noted at a half dozen localities in Guyana, with dates ranging from August to 5 May (Snyder, 1966:229–230; Davis, 1954: 446). While Davis (loc. cit.) considers the species to be only a transient in Guyana, there is a record for 25 December (Snyder, loc. cit.) which indicates at least some overwinter here.

The Bank Swallow has been found, sometimes in large numbers, in Suriname; the only specific dates reported are 8 November and 24 January (Haverschmidt, 1968:347). The dates indicate that it certainly is a winter resident there.

Tostain, et al. (1992:162) believe the species to be rare in French Guiana, presenting a record of one bird on 16 September and of 20 on 8 June. The latter appears very late and the number of birds large. It is possible *Phaeoprogne tapera,* the Brown-chested Martin, was misidentified as the Bank Swallow.

In Ecuador *Riparia riparia* has been found on the Pacific coast as a fall migrant (Marchant, 1958:355; Lévêque, 1964:60) and at 2,600 m in Imbabura, also in the fall (Lévêque, loc. cit.). Pearson (1972:12) says the species is present from November through March in the eastern lowlands.

There are reports of the species at a dozen localities in Peru, on the Pacific coast and in the eastern lowlands; large numbers have been seen in the northeastern lowlands (Stotz, et al., 1992:616). Interestingly, the dates are mainly for the fall and early winter. There are no reports later than 12 February.

There are records, sometimes of many thousands of individuals, of the species from about 17 scattered sites within Brazil. Recent studies at Manaus, Amazonas (Stotz, et al., 1992:616) show the species is present in the vicinity from September to May, a much longer period than the few previous reports from elsewhere in the country have indicated, with peak numbers occurring during the spring and fall migrations.

The records for Bolivia show the species to be found from the interAndean plateau at well over 4,300 m down to 400 m in the eastern lowlands. The few dates available range from 23 September to 27 April. The earliest record is of a bird at the highest altitude. This may indicate it was a transient en route to low elevations, although winter birds have been taken as high as 2,500 m.

The species has seldom been found in Chile. There are several December and January reports from Antofagasta (Howell, 1975:106; Johnson, 1972:23), two records from much farther south in Valdivia in January (Johnson, loc. cit.) and in Llanquihue of unknown date (Araya, et al., 1974:314), and a recent report (Vuillumier, et al., 1993:86) from Península de Brunswick, Magallanes, on 12 November. The latter is the southernmost record for the continent.

For Paraguay and Uruguay there is for each a single authenticated report of the species, the former on 4 January and the latter on 8 August, a very early date for so far south.

There is relatively little information on the Bank Swallow in Argentina. There are 13 specific site records in the provinces of Buenos Aires, La Pampa, Corrientes, Catamarca, Entre Ríos, Tucumán, and Córdoba; all are at altitudes below 1,000 m. The dates range from 30 October to 29 March.

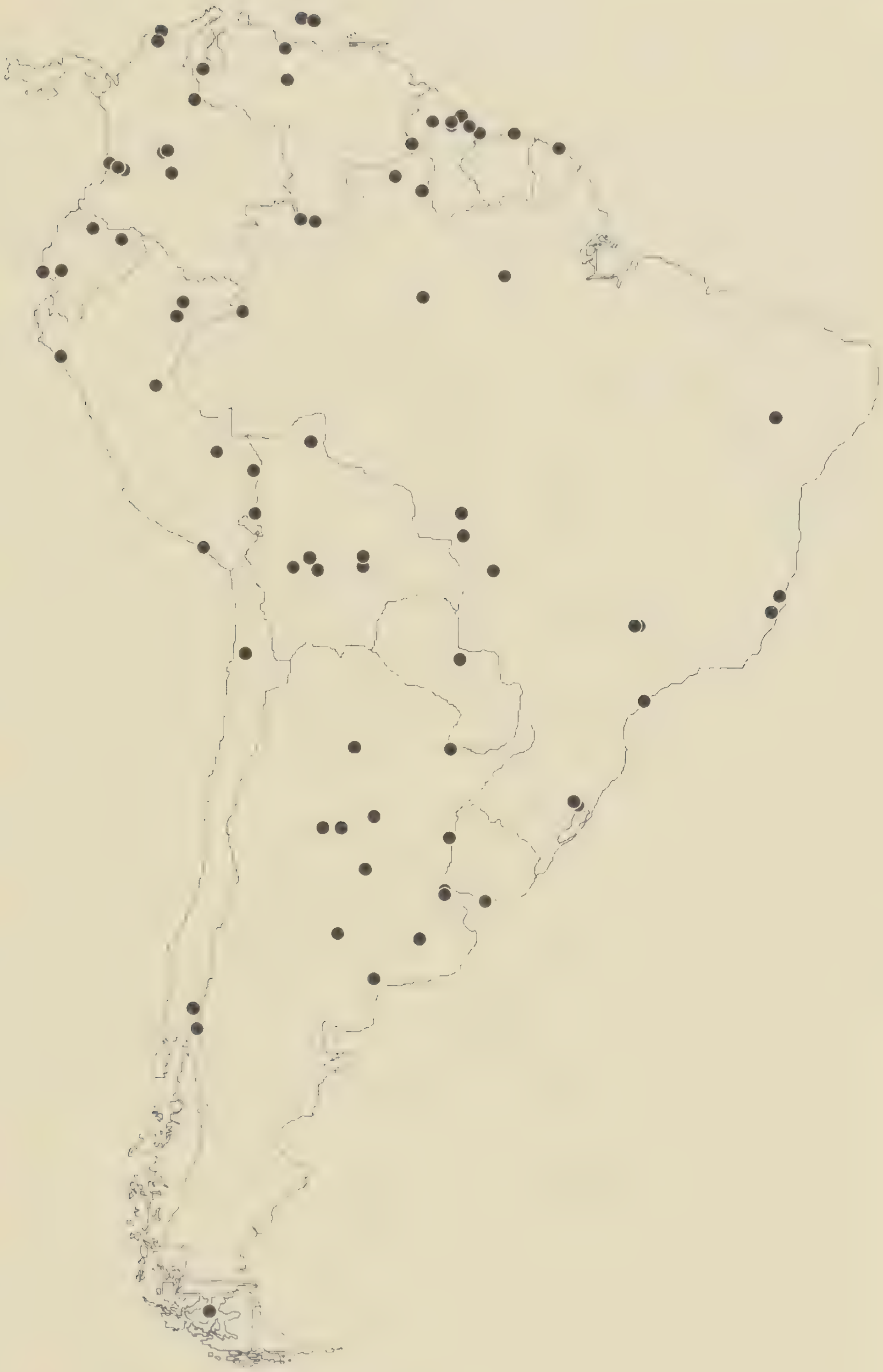

Fig. 13. Distribution of *Riparia riparia*.

BARN SWALLOW

Hirundo rustica

The Barn Swallow breeds in Eurasia as well as over most of North America south through the tableland of Mexico. During the winter it occurs, sometimes in large numbers, mainly in South America (Fig. 14) where it is one of the most frequently observed North America migrants, having been reported 297 times at 202 localities. A few birds winter as far north as the southern United States. Migration is through Central American and the West Indies.

It has been found in Colombia from the coast up to 2,800 m in every month except July. The most numerous reports are from September–November and April–May, when the birds apparently are migrating to or from farther south. The presence of Barn Swallows in western Meta as late as 15 June (Hilty and Brown, 1986:526) and in Chocó as early as 20 August (Chapman, 1917:502) is suggestive of either summer residency or possibly breeding. Hilty and Brown's statement (loc. cit.) that Barn Swallows are only fall transients at Leticia, southern Amazonas, seems contradicted by Dugand and Borrero's account (1946:160) of the species on nearby Río Loreto-yacú on 23 March.

There are only a few records from Ecuador. Three are fall observations in the lowlands of Guayas, one October report from 2,570 m in the mountains of Imbabura, and a report (Pearson, 1972:12) of the species in the Amazonian lowlands at Limóncocha from November to March, although no specific observations are recorded.

Meyer de Schauensee and Phelps (1978:286) say that the species is found throughout Venezuela at all altitudes in every month of the year, although rare in May, June, and July. I have failed to find specific records for June and July.

The species is abundant in the Guianas. It has been recorded in a dozen locations in Guyana, although there are few details available. Snyder (1966:230) gives the bird's dates from August to May. In Suriname there are about the same number of localities from which the species has been recorded but the dates are better known, extending from 20 August to 5 June. Recent studies (e.g., Tostain, 1980:59; Tostain, et al., 1992:162) have documented the species at a number of places in French Guiana, and indicate the species arrives as early as 5 August; the latest date is 7 June.

In Peru the Barn Swallow has been found along the entire length of the Pacific coast, as well as in the eastern lowlands. No specific record above 800 m has been noted, although Parker, et al. (1982:69) report it occurs (uncommonly) as a migrant up to the puna zone and Fjeldså and Krabbe (1990:532) indicate the species may be found throughout the high Andes, in varying numbers, at any time of the year. In spite of the frequency with which the bird has been observed, there are few data concerning the time it is present. There are records only for 1 January, 10 March, 10 April, October, and December.

The species occurs over a wide area in Brazil, sometimes in huge flocks. There is a near-absence of records of the species in the eastern quarter of the country. This must reflect the absence of the species rather than a dearth of collectors since there are hundreds of collecting sites in this region (see Paynter and Traylor, 1991, *Ornithological Gazetteer of Brazil,* pp. 686–687). This swallow is a resident in the vicinity of Manaus from 4 September to 10 May (Stotz, et al., 1992:616) and farther south, in Rio Grande do Sul, from 19 September to 29 March (Belton, 1985:100). The dates for other localities fall within these ranges.

Barn Swallows have been found over much of Bolivia, including a number reported at higher altitudes than elsewhere in its New World range. For example, it was seen at Laguna Alalay, Cochabamba, at about 2,500 m, from 26 October to 22 June (Dott, 1985:345), at Oploca, Potosí, at 3,350 m, on 2 March (Bond and Meyer de Schauensee, 1942:366), at Laguna Colorado, Potosí, at 4,196 m, in November (Dott, loc. cit.) and at Sajamá, Oruro, at 4,414 m, on 5 December (Schmitt and Schmitt, 1987:132). The spread of these dates indicates at least some of these birds were winter residents rather than migrants en route to lower altitudes. The earliest fall date I have found is for birds at the city of Santa Cruz and also near Montero, Santa Cruz, both on 3 October (Parker and Rowlett, 1984:172). The latest date is 22 June, as indicated above.

There are scattered records in Chile from Antofagasta to Tierra del Fuego. In the latter locality small numbers were seen from October to June (Venegas and Jory, 1979:168). Elsewhere there are available dates only for December, January, and March.

For Paraguay there are records from six localities, with dates for three of 24 September, 12 January, and 28 February.

The three Uruguayan localities are on the Atlantic coast with known dates of 21 October and 5 February.

As can be seen from the map, in Argentina there are a few places where the species has been found in the vicinity of Buenos Aires, several in the northern interior of the country, and several in the southern area from Río Negro south to Tierra del Fuego. There is little information about the time of residency. Most documented dates are from October to December. Dabbene (1910:351) gives October to March while De Lucca and Saggese (1992:260) push the date back to about 20 September, while Nores and Yzurieta (1980:125) mention that some members of the species can be found throughout the year.

Of interest is the finding (Martínez, 1983) of the species breeding in small numbers at Laguna Mar Chiquita, Buenos Aires during two southern hemisphere winters in 1980–1982. Ten nests, mostly unoccupied, were seen at the same site on 24 November 1983 and a single nest with eggs was found nearby at Santa Clara del Mar on the same day (Fraga and Narosky, 1985:74). There are also more recent reports, without specifics, of additional breeding in Buenos Aires at Balcarce, San Cayetano, and Monte Hermoso (Narosky and Di Giacomo, 1993:93).

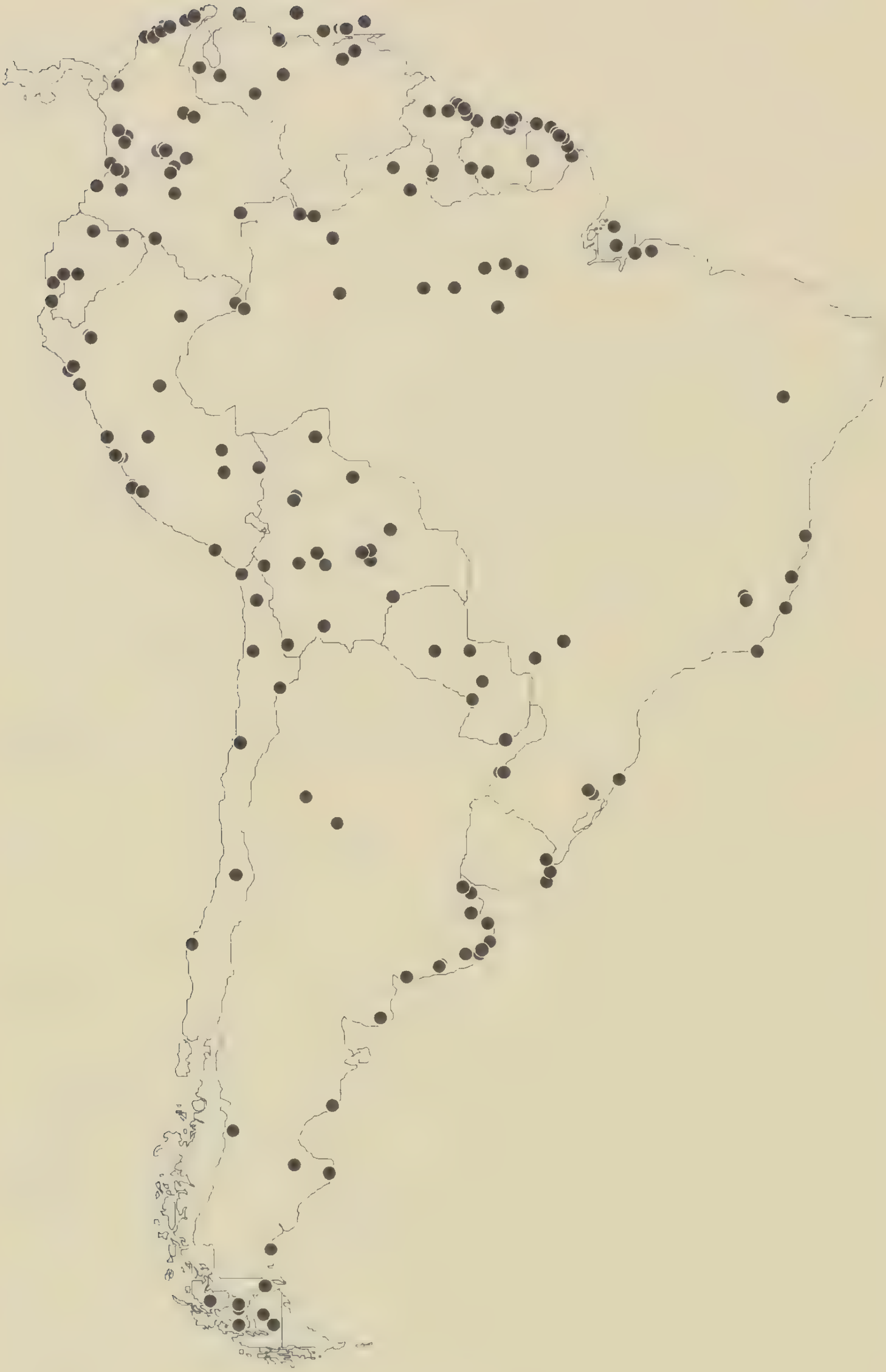

Fig. 14. Distribution of *Hirundo rustica*.

PURPLE MARTIN

Progne subis

The species breeds across southern Canada south to Baja California, central Mexico, the Gulf coast, and Florida. On migration it occurs in southern Mexico and Central America and casually in the Greater Antilles. It winters locally over the northern three-quarters of South America (Fig. 15). In spite of various authors (e.g., Fjeldså and Krabbe, 1990:528) mentioning its occurrence in large flocks, it has been specifically recorded at only 39 sites. The difficulty in differentiating the various species of *Progne* may obscure the status of *P. subis*.

In Colombia it occurs mainly in the Eastern Andes, at altitudes up to 3,100 m, but is also known from the Pacific coast, the Caribbean lowlands and Amazon Basin. Observations range from 27 August to 29 April. For the country as a whole, there are 12 sightings at seven localities, some of which may pertain to transients rather than to winterers.

For Venezuela I have found five records from four localities in Bolívar, Distrito Federal, Portuguesa, and Zulia, all below 1,000 m, and only two dates (26 March, 4 April), but Fjeldså and Krabbe (1990:528) mention a maximum altitude of 4,000 m. Meyer de Schauensee and Phelps (1978:284) include southern Amazonas in the range and place the species in the country from September to April.

Pearson (1980:277) cites the species as a transient in the eastern lowlands at Limóncocha, Napo, Ecuador and Fjeldså and Krabbe (1990:528) include an undetailed record from the Andes of that country.

Purple Martins have been sighted five times in northern Guyana (August–September, February, April) and once in Suriname (9 October).

The species has been found most often in Brazil. There are reports, sometimes of hundreds of birds, from 16 sites, none exceeding an altitude of 400 m, mainly along the middle Amazon in Amazonas and Pará, but with a few scattered from Bahia, Mato Grosso, Espírito Santo, São Paulo, and Rio de Janeiro.

The distribution of these reports suggests that they reflect human population centers and localities with active ornithological research, such as Manaus, rather than the true distribution of wintering Purple Martins. Vizotto, et al. (1984) report the species as occurring at São José do Rio Prêto, São Paulo, in immense numbers from October to May. Records from Manaus extend from as early as 2 August to 11 April (Stotz, et al., 1992:516); and dates from other localities fall within these limits. The early August date hints at the possibility that some birds may remain during the northern summer.

In Peru the only records are for the Amazonian city of Iquitos, where the species seems to have been first found around 1976, apparently in small numbers within enormous flocks of *P. modesta*, the Southern Martin (Oren, 1980).

Oren (op. cit.) collected an immature male in mid-September 1978 and speculated that, because immature martins do not breed, they might remain in South America during the northern breeding season, a situation now known to be true (see p. 110).

In Bolivia Purple Martins have been found at five widely scattered sites, all within the lowlands except for one in the mountains at Cochabamba.

Although Canevari, et al. (1991:398) list the species as being present in the northern part of Argentina, and also suggest it may occur during the Northern Hemisphere's summer, there is only one specific record, this being the sighting of five birds at Laguna Pocho, Córdoba, on 3 November (Nores, et al., 1986:76). Ridgely and Tudor (1989:52) also include Formosa within the range but give no specifics.

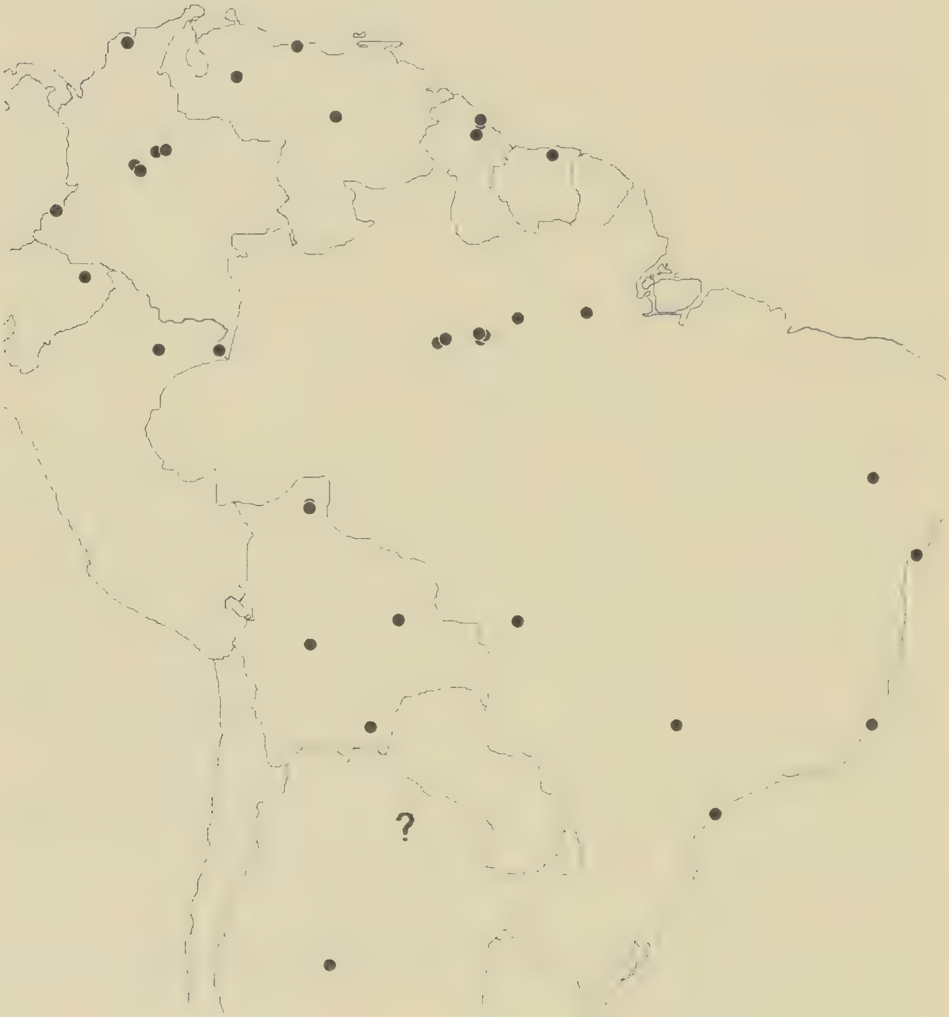

Fig. 15. Distribution of *Progne subis*.

CLIFF SWALLOW

Petrochelidon pyrrhonota

The Cliff Swallow breeds over most of Canada and the United States, except for the southeastern portion, and in Mexico south to Oaxaca. On migration it passes through Central America and the Antilles to winter in South America (Fig. 16) and, rarely, in adjacent Panama. It is possible that the northern race of *P. fulva*, the Cave Swallow, also occurs in South America.

In Colombia it appears only to be a transient, apparently more numerous in the fall than in the spring (Hilty and Brown, 1986:527), occurring from 11 September to 22 October with a report (Hilty and Brown, loc. cit.) from northeastern Meta in November. The spring dates are from 4 April to 5 May. Although there are records from the Pacific coast and inland to as high as 3,000 m in the Eastern Andes, Cliff Swallows have not yet been found at any season in the northern lowlands, an area comparatively well-studied.

The species is also a rare transient in Venezuela, having been seen as early as August (Meyer de Schauensee and Phelps, 1978:287) and as late as 16 October (Hellmayr, 1935:31). It has been found on the island of La Orchila (Meyer de Schauensee and Phelps, loc. cit.) and once at Caracas. There are three or four reports from the state of Mérida, well in the interior of the country, reinforcing the impression that the species avoids the Atlantic lowlands. There are no records for the spring migration.

The Cliff Swallow has been found at one locality in the Amazonian lowlands of Ecuador in November and March (Pearson, 1972:12). Presumably it is only a transient here.

In Peru there are several records from the Pacific coast, the mountains of the interior, and on the Amazon slope. Only four dates have been published, all from 1–24 October, suggesting that the species may not winter here.

Bolivian reports are from the highlands at 3,700 m down to 176 m in the eastern lowlands, with the dates ranging from 9–25 October, 14 November–5 December, and 17 April. Probably some birds are winter residents.

In Chile there are several, poorly documented, records from Tarapacá, Antofagasta, and Llanquihue. The only dates that are known are for October, although the species must occur during the austral summer.

In Brazil the Cliff Swallow has been reported on three occasions in the Amazon Basin. As the dates are 1 October, 14 November, and 26 April, it seems the species might be only a transient in this area. Farther south in Brazil there are more than 20 records extending from 5 December to 14 March.

As yet there are no reports from Paraguay, but in Uruguay there are several from 2 November to an unspecified date in March.

There are a number of reports from northern Argentina, in Jujuy, Salta, Tucumán, Córdoba, Entre Ríos, and Buenos Aires, with dates ranging from November to April. Both Olrog (1979:238) and Clark (1986:244) record Cliff Swallows in Tierra del Fuego, but with no specific documentation. Canevari, et al., (1991:402) indicate that the species is found in abundance throughout Argentina in the austral spring and fall but, curiously, no mention is made of the summer months.

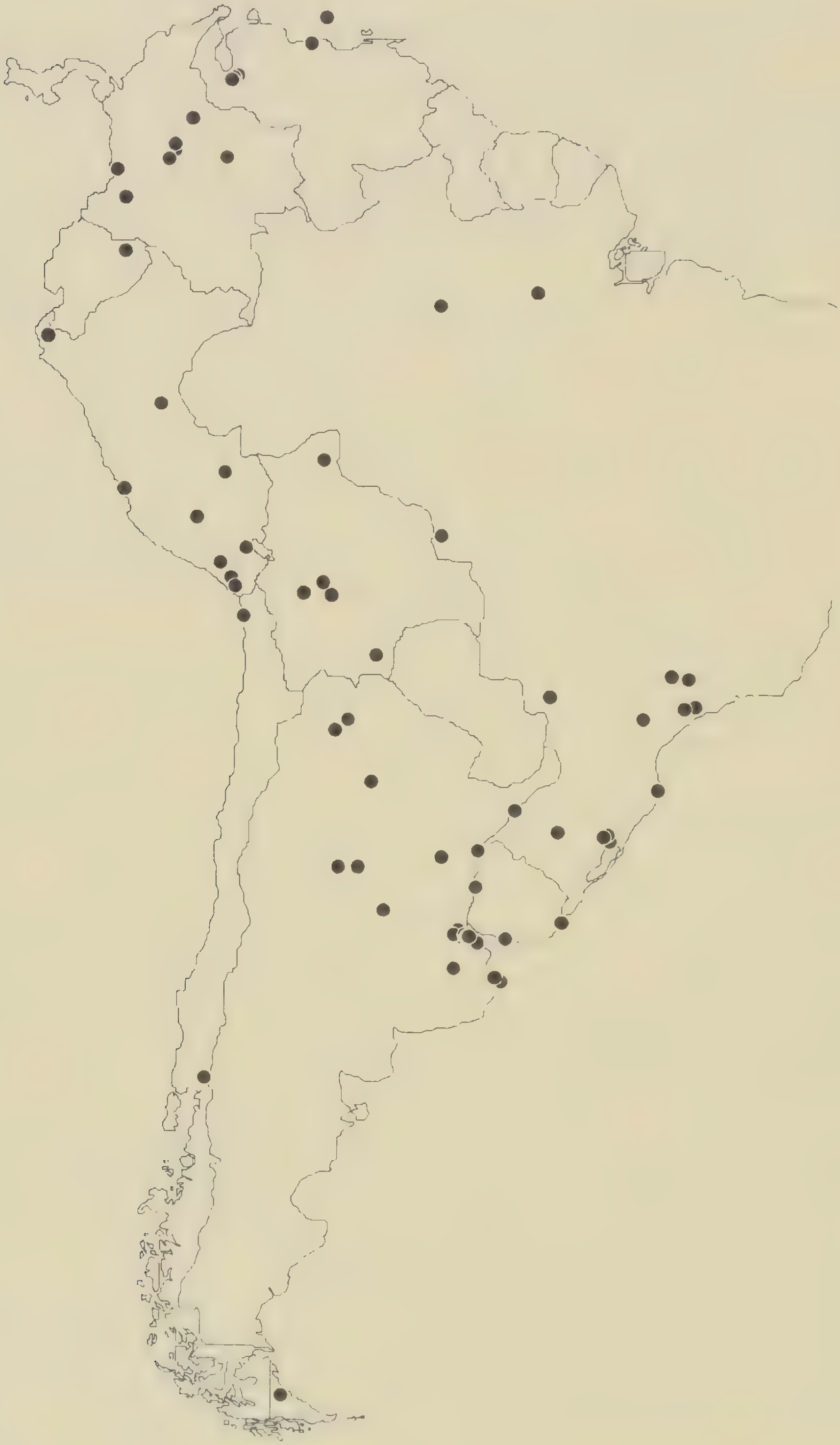

Fig. 16. Distribution of *Petrochelidon pyrrhonota*.

GRAY CATBIRD

Dumetella carolinensis

Dumetella carolinensis breeds over most of the eastern two-thirds of the United States and in southern Canada. It has an extensive winter range from the southeastern United States and the Bahamas through the northern West Indies and on the Gulf and Caribbean coasts of Middle America to Panama.

It has been recorded three times in the Caribbean lowlands of Colombia (Fig. 17), first at Ciénaga, Magdalena, on 23 March 1929 (Darlington, 1931:406) and more recently in Chocó in the vicinity of Tanela on 26 January 1975 and at Santatá on 6 January 1978 (Rodríguez, 1980:7). This may be indicative of its occurrence regularly in small numbers in this region.

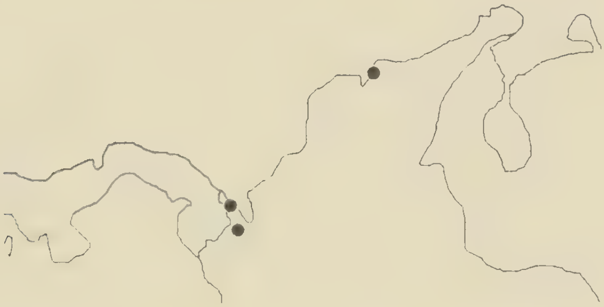

Fig. 17. Distribution of *Dumetella carolinensis.*

WOOD THRUSH

Hylocichla mustelina

Hylocichla mustelina breeds over the eastern half of the United States and contiguous southern Canada. In the winter it displays a common type of distribution, occurring from southernmost Texas through Central America to Panama.

It has been recorded only once in continental South America (Fig. 18), near the Panama border at Santatá, Chocó, Colombia on 6 December 1975 (Rodríguez, 1980:8). There is a sight record, that appears to be authentic, from the remote Falkland Islands at Port Stanley on February 1970 (Olrog, 1972:262).

Fig. 18. Distribution of *Hylocichla mustelina.*

SWAINSON'S THRUSH

Catharus ustulatus

Swainson's Thrush breeds over a wide area of North America from Alaska east to Newfoundland and south, in the west, to California, Nevada, Montana and Manitoba, and in the east to Minnesota, Ontario, Pennsylvania, and Maine, as well as in West Virginia and Virginia. It winters uncommonly from Mexico through Central America and more commonly in South America south to Bolivia and northern Argentina (Fig. 19).

Within South America this is the most frequently recorded of the North American thrushes, having been noted at 169 localities and in a diversity of habitats, ranging from gardens to second growth and forest. It occurs mainly in and along the Andes.

There are many records from throughout the western half of Colombia, ranging in altitude from close to sea level to over 3,000 m, but the majority are over 1,200 m. The species is in Colombia from 25 September to 1 May. The extremes of these inclusive dates almost certainly represent birds in transit, as they are the earliest and latest dates from anywhere on the continent.

The species reaches its eastern limit in Venezuela. Apparently it is uncommon there. There are records from the Andes and slopes of Táchira, Barinas, and Mérida and from Sierra de Perijá, Zulia, as well as from Monte Roraima, Bolívar and a specimen from the lowlands of Amazonas at San Fernando de Atabapo.

Chubb (1921:390) includes the species in the avifauna of Guyana on the basis of a single specimen of unknown provenance and date. It is not indicated on Figure 19.

Crowded near the southernmost border of Venezuela are four records for Amazonas, Brazil, which Sick (1985:633) says were from November, February, and March. Far to the south there is a record of a Swainson's Thrush at Rio de Janeiro on 16 November (Scott & Brooke, 1985:128) and one in the state of São Paulo on 1 February (Willis, et al., 1993:193).

In Ecuador the species is comparatively common from mid-October to mid-April, and occurs in and on both sides of the Andes extending out into the Amazonian lowland but apparently rarely onto the coastal plain. It has been seen at altitudes ranging from 100 to 3,800 m.

In Peru *Catharus ustulatus* is very common on both slopes at middle and lower elevations, generally between 1,000 and 2,800 m (Willard and Schulenberg, in litt.). There are few records from the edge of the Amazon Basin as well as from the Pacific coast. It occurs between 18 October and 14 January. The latter date is unexpectedly early and may merely be an artifact of sampling, but the fact that in Bolivia (see below) the species also has not been found later is suggestive.

The Bolivian reports of this species are also frequent and concentrated in the Andes, with a scattered few from the eastern lowlands. The presence has been noted from 14 October through 12 January, a pattern also seen in Peru.

There are five site records of the species in the Andes of northwestern Argentina and one from the east in Entre Rios (Parera, 1990:31). There is little specific information on the time it is present. Olrog (1979:244) places it in the country from October to March; published dates range from 8 December to 25 January.

Swainson's Thrush has been recorded by Bertoni (1939:34) at Puerto Bertoni in the southeastern part of Paraguay, but he gives no further information.

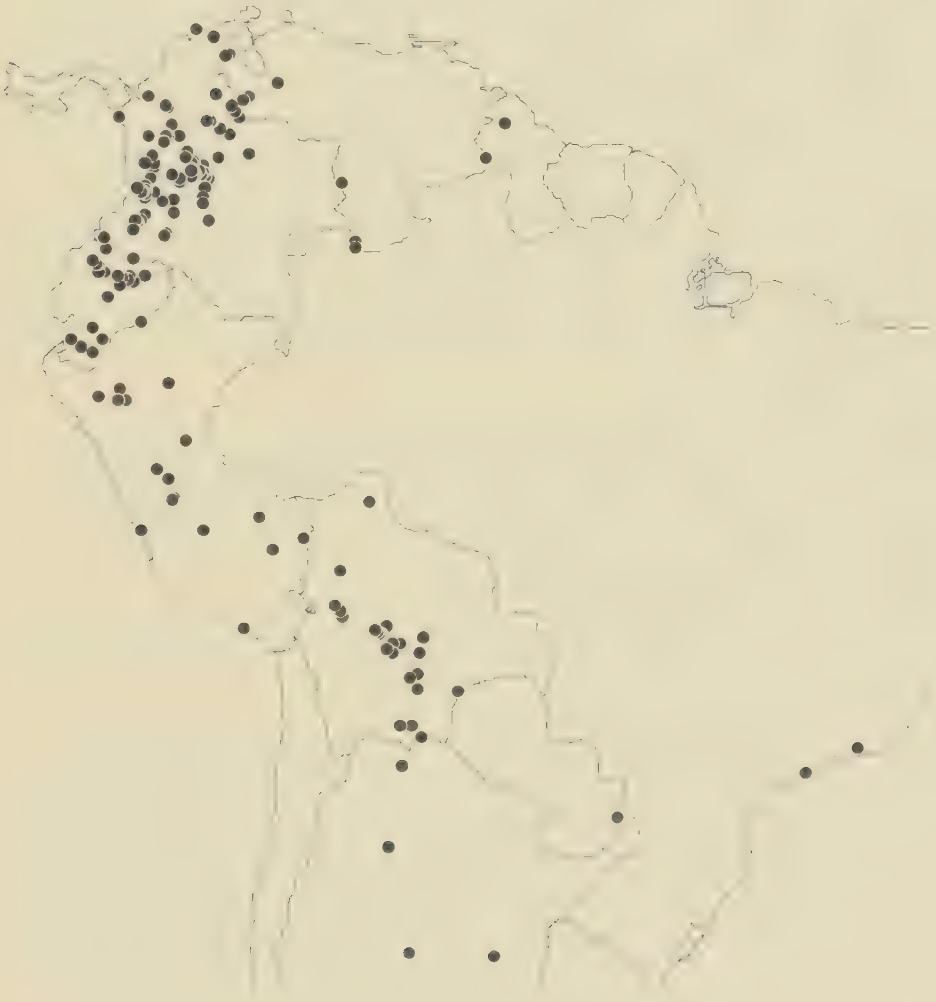

Fig. 19. Distribution of *Catharus ustulatus.*

GRAY-CHEEKED THRUSH

Catharus minimus

Catharus minimus breeds in boreal forests from northeastern Siberia and northern Alaska across Canada to Newfoundland and south in the west to British Colombia and in the east to northern New York and northern New England. The southeastern population (*bicknelli*) is sometimes (Ouellet, 1993) treated as a full species. On migration it occurs primarily in the eastern United States, the Greater Antilles, and eastern Mexico and Central America. In the winter it is found in Hispaniola (*bicknelli*) and in northern South America (Fig. 20) and Trinidad, casually north to southern Central America (*C. m. minimus*). There is no evidence of *bicknelli* occurring in Venezuela, contra Wilcove and Terborgh (1984:11).

In Colombia there are records of the Gray-cheeked Thrush at 22 sites from 7 October to 24 April in habitats ranging from forest to shrubby growth. Most observations are at moderate elevations in the Andes, although there are some from the Santa Marta region and one from the lowlands of Vichada on the Río Oronoco. At nearly half of the localities *C. ustulatus* has also been found.

There are few reports of the species in Venezuela, ranging from the sparse scrub of the coastal mountains in Aragua and Miranda to primary forest in southern-most Amazonas on the Brazilian border. Meyer de Schauensee and Phelps (1978:297) gives its dates as September to May, although I have found specific dates only for April and more generalized references to the months January-March..

There are three one-hundred-year-old reports from Guyana (Snyder, 1966:238) and a single recent observation in Suriname (Donahue, 1985:230).

The species has been seen at five places in Ecuador, viz., in the Amazonian lowlands or nearby slope and once on the western slope. The dates are from November to 12 March, but with so few data this is of no significance. *C. ustulatus* also occurred at three of the four eastern sites.

In Peru there are three localities in the Amazon lowlands where the species is known to occur, but only a 30 March date has been recorded. It was noted with *C. ustulatus* at two of these places.

The Brazilian occurrences are at four sites in Amazonas. There have been about two dozen observations, and, with one exception, these have been made since 1974. Again this seems to be a function of the recent presence of skilled observers, but it could be indicative of a change in the winter distribution of the species brought about through habitat changes. The dates of occurrence range from 15 October to 5 May, and are clustered at both ends with but single reports for January and February. This suggests that *C. minimus* may, for the most part, migrate through Amazonas, but where the main wintering grounds may be is unknown, although Ridgely and Tudor (1989:11) suggest it is in the southern part of Venezuela and the western Amazon basin.

It is noteworthy that *C. ustulatus* and *C. minimus* have not yet been found sympatrically in Brazil, Venezuela, or the Guianas, although they sometimes occur together, seemingly during migration, in Colombia, Ecuador, and Peru.

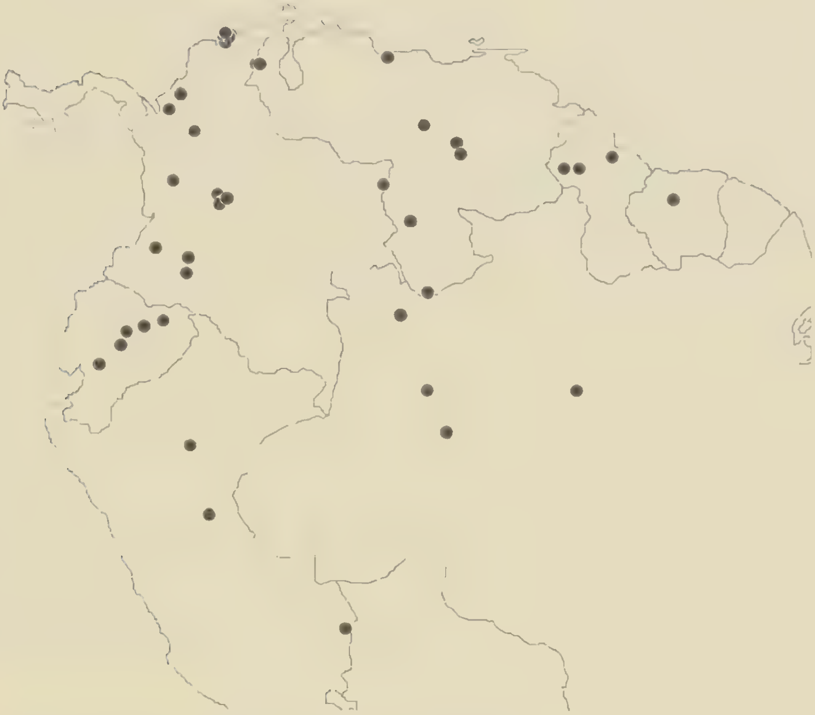

Fig. 20. Distribution of *Catharus minimus.*

VEERY

Catharus fuscescens

The species breeds across southern Canada south to the northern half of the United States. It migrates, both fall and spring, east of the Rockies through the United States, the northern West Indies, and mainly eastern Mexico and Central America. It winters in undergrowth in the northern half of South America (Fig. 21) and Trinidad, sometimes co-existing with *C. minimus* or *C. ustulatus,* or both, in Brazil, Colombia, Peru, and Bolivia.

Although it is a common bird on its breeding grounds, there are only 48 locality records from South America. Perhaps this is because it is silent and reclusive, or possibly because its main overwintering area has yet to be discovered, as suggested by Ridgely and Tudor (1989:112).

Of the 12 recorded dates for Colombia, seven are from October, one each from November and December, and two, the earliest for the continent from 4–5 September (Dugand, 1947:632). There is one spring record, viz., 2 March, Serranía de Macarena (Hilty and Brown, 1986:544). The fall/winter birds have been found in the Cauca Valley, in the lowlands of northern Colombia, and on the Eastern Andes, but not in the western lowlands or on the Central and Western Andes. If the species winters in Colombia it must be very rare. It occurs from sea level, seldom to 2,600 m.

There are 17 site records for Venezuela, all ranging below 1,000 m with the exception of a mid-March bird, presumably a transient, on a páramo at 4,400 m in Mérida. At most localities there are no specific dates for the occurrence of the Veery, but there are several from October, November, and March, and one, from Aragua, northern Venezuela on 19 April (Beebe, 1947:157) which seems to have been a migrating bird. A record from Guárico (Thomas,

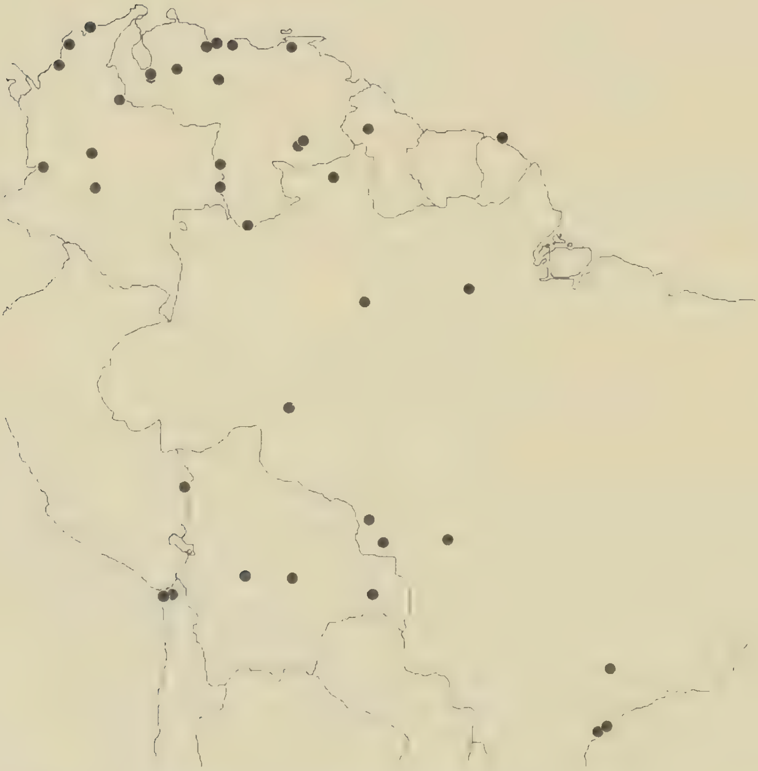

Fig. 21. Distribution of *Catharus fuscescens*.

1994:551) of a bird mist-netted on 3 May is the latest date for the continent. A specimen collected in Guyana on 12 April (Snyder, 1966:238), the only report for that country, represents the third latest continental record. There is one December report from French Guiana (Tostain, et al., 1992:200), and none as yet from Suriname.

South of the northern tier of countries, there are fewer records. Veeries have been found at 14 scattered places in the western two-thirds of Brazil, with dates ranging from an unspecified day in October to 10 April, but these cluster at the beginning and end of the period, with few between. The recording of Veeries in late November on the southeastern coast is very recent (Willis and Oniki, 1993:26) and surely reflects the presence of skilled field workers rather than a change in the bird's habits. The species must be very difficult to encounter from December to late February.

There is a November record from deep in the Amazonian region of southern Peru (Parker, 1982:489) and, curiously, undated reports from two sites very near one another on the arid Pacific coast of northernmost Chile that are the only times the species has been seen west of the Andes (McFarlane and Loo, 1974:164; Araya, et al., 1986:328). The data from Chile are so incomplete it is possible that these reports represent a single occurrence.

The Veery was taken once in Cochabamba, Bolivia at 2,560 m in November and there are several records from the lowlands of Santa Cruz, in November and March. Stotz, et al., (1992:617) speculate that the species winters primarily in eastern Bolivia and southern Brazil.

CEDAR WAXWING

Bombycilla cedrorum

The species breeds across the northern half of the United States and southern half of Canada. It winters mainly in the southern half of the United States and progressively less commonly southward in the Greater Antilles and Central America. It occurs rarely, or perhaps only accidentally, in northern South America (Fig. 22).

It has been found twice on the Pacific coast of Colombia, once at sea level at Nuquí, Chocó, on 8 February 1951 (Wetmore, 1955:47) and once, near sea level at Buenaventura, Valle del Cauca, on 5 January 1983 (Hilty and Brown, 1986:554). It also has occurred once in Venezuela in the Sierra de Perijá, on the Colombian border, at 1,650 m on Cerro Jamayaujaina, on 13 January 1951 (Aveledo and Pons, 1952b:23). Phelps and Phelps (1963:293), without comment, place this record on nearby Cerro Pajochaina.

The fact that two of the three observations, from widely separated localities, were made in 1951 is suggestive of a common causality for the species occurrence so far south of its usual winter range.

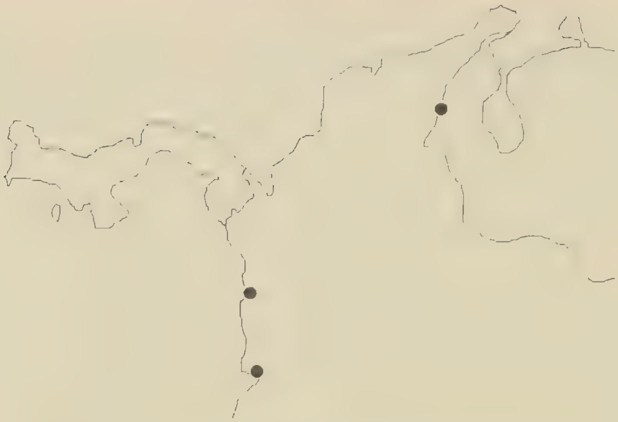

Fig. 22. Distribution of *Bombycilla cedrorum.*

RED-EYED VIREO

Vireo o. olivaceus

V. olivaceus is sometimes treated as comprising three species, viz., *olivaceus* (Red-eyed Vireo) of Canada and the United States, *flavoviridis* (Yellow-green Vireo) of extreme southern Texas, Mexico, and Central America, and *chivi* (Chivi Vireo) of South America. The latter two have several races each. At times *olivaceus* and *chivi* are considered to be members of a single species and *flavoviridis* stands alone. We are concerned here only with the Red-eyed Vireo, which breeds across Canada and south to Oregon, Montana, Oklahoma, and south-central Texas and the Gulf coast. It migrates through Mexico, Central America, and Great Antilles to winter in South America (Fig. 23). The presence of several local races in the same area as wintering *V. o. olivaceus* makes for considerable uncertainty in documenting its occurrence. It seems to prefer trees and high growth bordering clearings.

In Colombia the bird occurs from sea level in the Atlantic and Pacific coastal regions through the three Andean ranges, up to nearly 3,000 m, and, rarely, in the eastern lowlands close to the base of the Andes. Hilty and Brown (1986:556) indicate this form is found from mid-September to mid-May. Our records agree except for a specimen taken on 8 July in Tolima (Serna, 1980:78), which is unexpectedly early. It should be re-examined to confirm its identification.

In Venezuela the species occurs in the northwestern and southeastern parts of the country, from Aragua to Táchira and western Apure and from southern Bolívar and Central Amazonas. Its altitude ranges from close to sea level to

1,800 m, with one record from the páramo at 4,400 m. Our records extend from 20 October to 9 April.

There are several reports from Guyana, where the form is said to be a common visitor (Snyder, 1966:241), although there are no data on the dates of occurrence. In Suriname there are five reports from three localities on the northern coast. The earliest specimen was taken on 28 September and the latest on 19 March. The northern taxon has yet to be found in French Guiana.

In Ecuador the North American form has been found only in the lowlands of Pastaza and Napo, although it probably occurs more widely.

Peruvian reports of winter Red-eyed Vireos are from about 17 localities within the Andes up to 2,500 m, and on both slopes down to sea level. Our records range from 2 October to 27 April.

The subspecies appears rare in Brazil, so far having been found at only 10 sites in Roraima, Amazonas, Pará, and Mato Grosso. Cintra and Yamashita (1990:18) gives its dates in Mato Grosso from October to April; for the region around Manaus, Amazonas, Stotz, et al. (1992:617) have found the bird from 3 October to 14 March.

There is a record from Atacama, Chile (Philippi, 1964:160) where a single specimen was collected on 11 April. This represents the southernmost report of the taxon.

Although it is to be expected to occur in Bolivia in small numbers, and has been listed for that country by Bond and Meyer de Schauensee (1942:367) and Blake (1968:122), I can find no specific record of *V. o. olivaceus* from there. Remsen and Traylor (1989:45) do not distinguish between *olivaceus* and the *chivi* group.

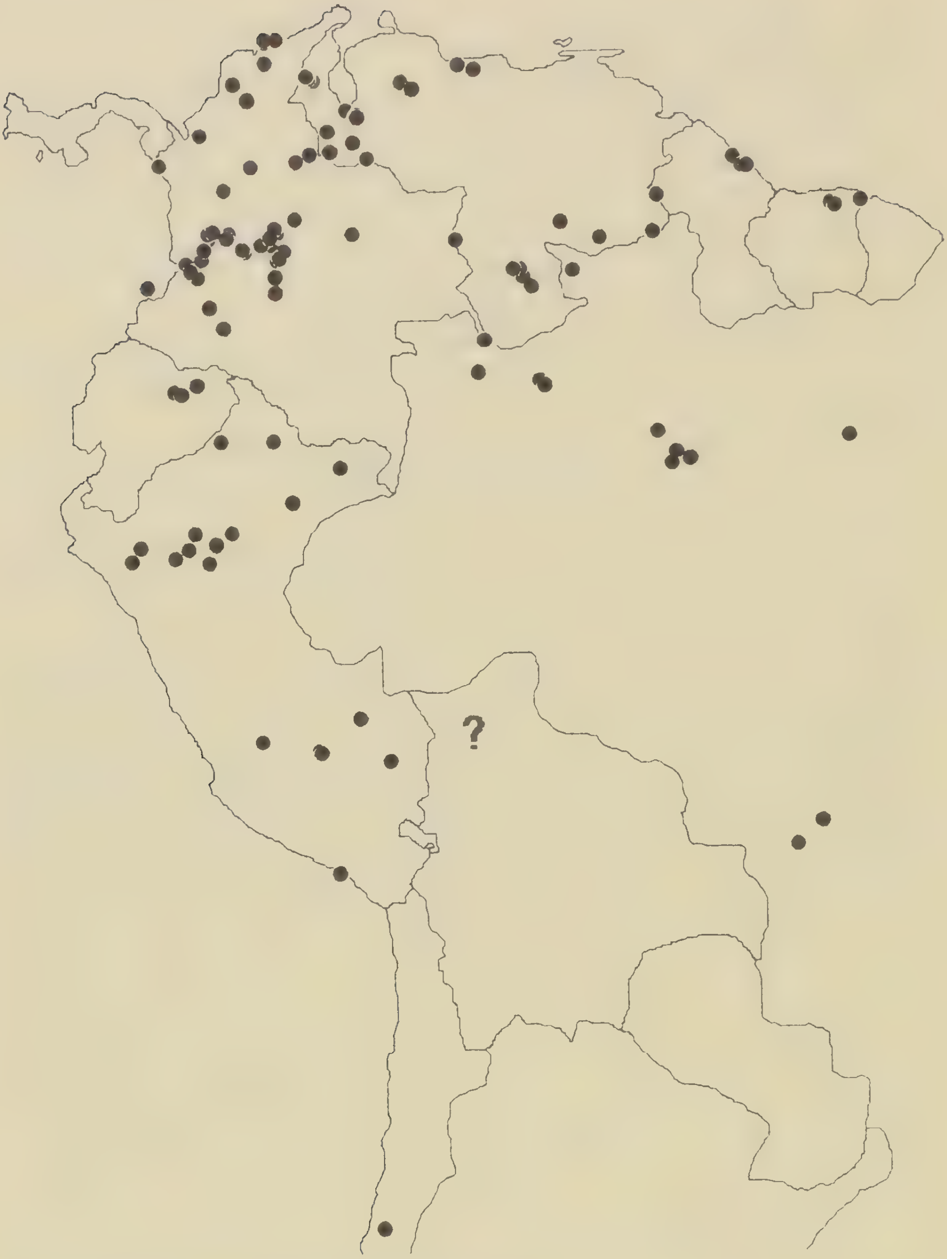

Fig. 23. Distribution of *Vireo o. olivaceus.*

YELLOW-GREEN VIREO

Vireo o. flavoviridis

The Yellow-green Vireo is usually treated as a Middle American race of *V. olivaceus* that ranges from Panama north to Mexico, just reaching southern Texas. (For remarks on the breeding range and taxonomy of the group see *V. o. olivaceus.*) Like the nominate taxon, very little is known about its wintering quarters in spite of many statements that the race winters in the Amazon Basin. It appears to frequent the same habitats as the nominate race (Fig. 24).

This form is known in Colombia from below 1,000 m, mainly on the northern coast but also in the upper Cauca Valley, and in Vaupes close to the Brazilian border. It may be only a transient, but there are two specimens in post-nuptial molt from Nariño taken on 7 and 11 July (Meyer de Schauensee, 1952a:27; 1952b:1206) that seem to be correctly identified and which may be early migrants, birds that failed to migrate, or even resident birds. There are about a dozen additional records for which there are dates and these fall between 12 August and 11 November, with a single record for Huila on 4 March.

To date there seem to be only two reports of this bird in Venezuela. One is an October record from Páramo de Tamá, Táchira, on the Colombia/Venezuela border (Meyer de Schauensee and Phelps, 1978:305). The altitude is unknown but presumably is in excess of 2,400 m, the lower limit of the páramo. There is also a record of a specimen from Las Mesas at 460 m, Táchira, collected in 1967 (Phelps, 1973:33). Las Mesas cannot be located. While these may represent a single observation, an altitude of 460 m seems to indicate Las Mesas is not on the Páramo de Tamá.

For Ecuador there are records from six localities in the Amazon region and one from an unlocated “San José” (Berlioz, 1928:73). The only available dates are from 7 March to 11 April.

The form has been found at ten localities in the Amazonian lowlands or lower eastern slopes of Peru. Only a single date, 23 February, has been published.

From central Bolivia this taxon has been found at four localities. The only dates are 25 January and 4 February.

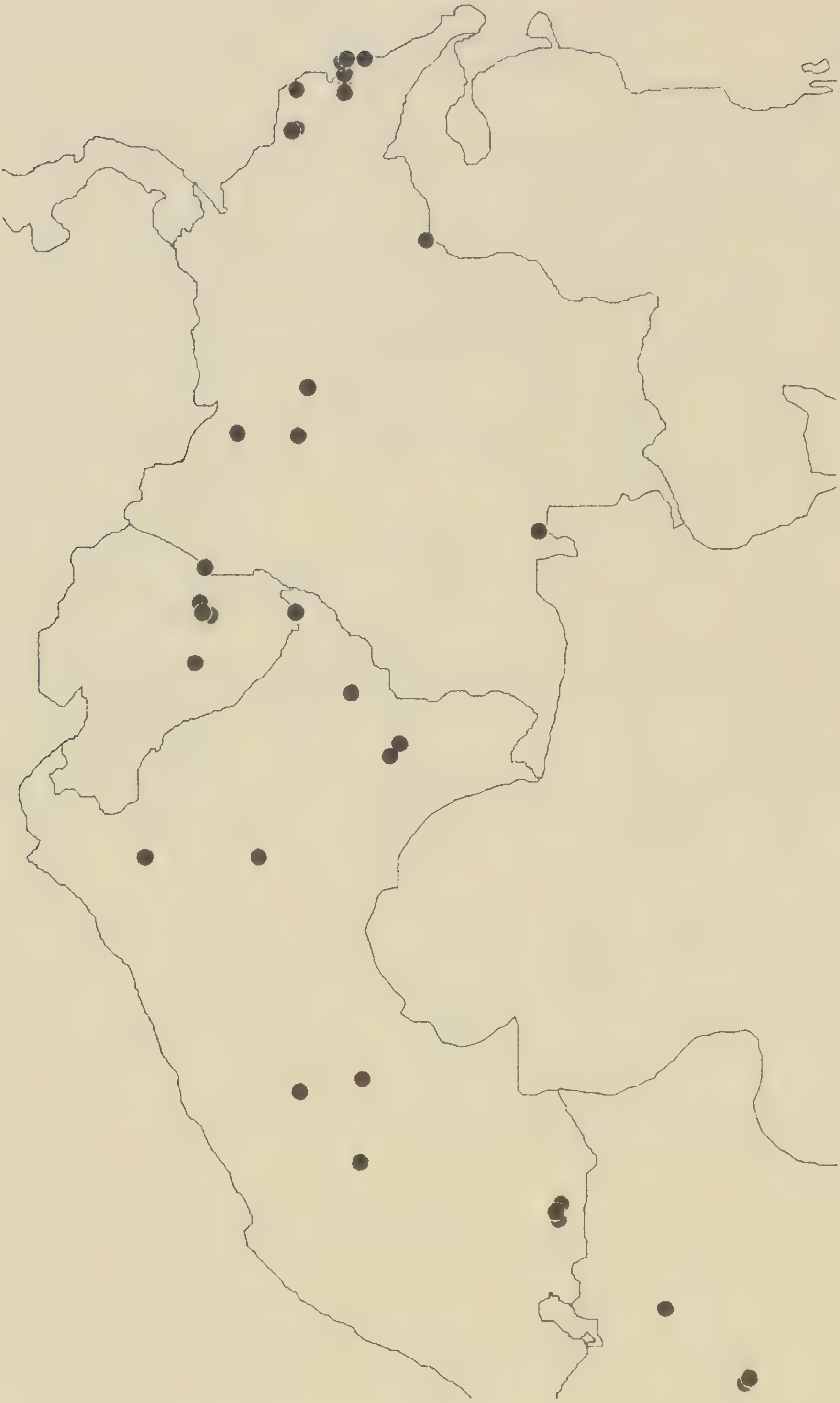

Fig. 24. Distribution of *Vireo o. flavoviridis.*

BLACK-WHISKERED VIREO

Vireo altiloquus

This vireo is primarily a West Indian form, breeding from central Florida south through the Antilles to the islands off the coast of Venezuela. In the winter it shifts southward, occurring from Hispaniola (rarely) through the the Lesser Antilles and Caribbean Panama to northern South America east of the Andes (Fig. 25), where it occupies tall second growth and edges.

The species has been found on the northern coast of Colombia, in the northern part of the Eastern Andes, generally below 1,000 m, and once in the llanos. It appears to be uncommon, having been noted only at 11 localities, and probably is a transient. Hilty and Brown (1986:555) give its dates as mid-August to late September and mid-March to mid-April, with the exception of a bird seen in the Santa Marta region on 25 June and one at Bogotá, the highest altitude yet recorded, on 13 November.

On mainland Venezuela there are records from eight sites. The data are poor, but this vireo seems to have occurred up to about 2,000 m in the eastern extension of the Andes in Mérida down to the lowlands of Amazonas, and once, far to the south, on Cerro de la Neblina at 2,100 m in March (Willard, et al., 1991:62). Meyer de Schauensee and Phelps (1978:305) treat it as a fall

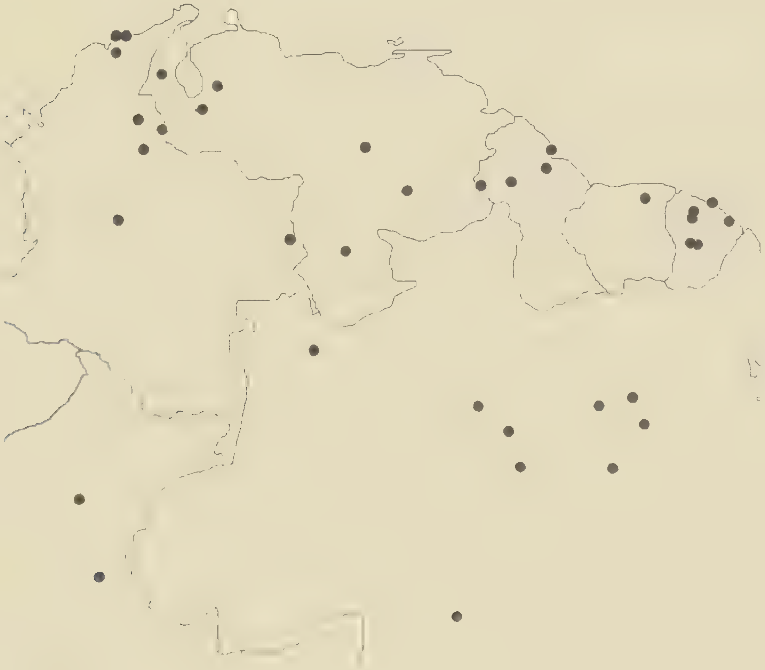

Fig. 25. Distribution of *Vireo altiloquus*.

transient, from August to October. The only record for the spring is the recent Cerro de la Neblina specimen.

The Black-whiskered Vireo seems to be uncommon in Guyana. I have found only four sites where it has been recorded and no dates accompany these records. Snyder (1966:242) treats it as a winter visitant.

There is, to date, only a single report (17 December) from Suriname (Haverschmidt, 1970:584). The species was unreported from French Guiana until 1977. Recent work there has added six records. Observations in November, December, and February attest to its status as a winter resident. A record from 8 June (Tostain, et al., 1992:168) seems late.

In Peru the species has been found at two places in the Amazonian lowlands of Loreto (Brack Egg, 1971:378) and Ucayali (Pearson, 1980:277). Regrettably, the dates of occurrence were not published. Presumably it is rare there.

There are reports of the species at nine sites in Brazil, seven of which are in the vicinity of the middle lower Amazon, one on the upper Rio Negro, and one far to the south in Rondônia. Stotz, et al. (1992:617) consider this vireo to be uncommon in the vicinity of Manaus, with records extending from 13 September to 12 February. Hellmayr (1935:148) reports a bird from the same locality on 23 April. The few dates available for other locations fall within this span.

YELLOW-THROATED VIREO

Vireo flavifrons

The Yellow-throated Vireo breeds in the eastern half of the United States and adjacent Canada from Manitoba east to Maine and south to eastern Texas and most of Florida. In the winter it occurs in thickets and thinly wooded areas from the southernmost edge of its breeding range, the Bahamas, and Cuba south through eastern Mexico and Central America to Colombia and Venezuela (Fig. 26).

Its principal winter range in South America appears to be Colombia, where, although uncommon, it has been reported from scattered points, between 250 and 2,750 m, in and adjacent to the Andes from La Guajira south to Cauca, and once (Hilty and Brown, 1986:556) in the llanos of Vaupés. Published records are from 10 November to 13 February. Hilty and Brown (1986:556) extend the season to 10 March. There is one unexpected occurrence on 30 June in La Guajira (Andrade and Mejia, 1988:165).

The few Venezuelan reports are from the northern coastal range and the Andes from Zulia to Táchira, from about 1,000 to 1,800 m. It is present from November to March (Meyer de Schauensee and Phelps, 1978:305).

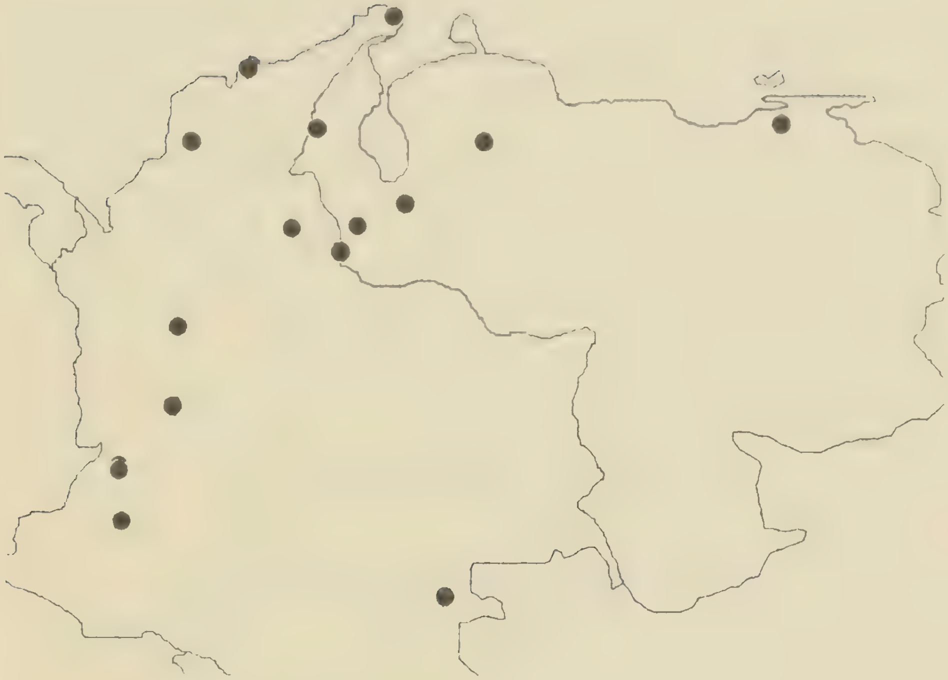

Fig. 26. Distribution of *Vireo flavifrons.*

PHILADELPHIA VIREO

Vireo philadelphicus

This vireo breeds in the southern third of Canada from British Columbia eastward and the northernmost part of the adjacent United States. It winters in brushy areas in Central America, rarely north to the Yucatán Peninsula, and uncommonly south to Colombia.

It has been found in Colombia at four localities in Magdalena, Chocó, Cundinamarca, and Valle del Cauca, between 2,000 and 2,600 m (Fig. 27). There are several observations from two of these localities. The dates range from 25 October to 8 April.

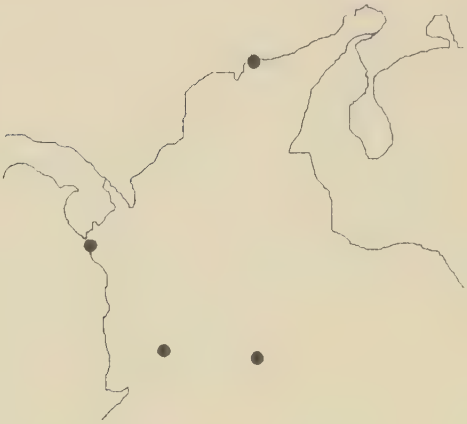

Fig. 27. Distribution of *Vireo philadelphicus.*

BLACK AND WHITE WARBLER

Mniotilta varia

M. varia has an extensive breeding range in southern Canada from Mackenzie eastward and in the eastern two-thirds of the United States, but not including the Gulf and southern Atlantic coasts. It has a very wide winter dispersal, ranging from Baja California, Florida, and the Bahamas south through Mexico, Central America, and the West Indies to Ecuador, Colombia, Venezuela, and Peru (Fig. 28). It frequents lightly forested regions and edges.

In Colombia it has been found at over 50 localities on both slopes of all three Andean ranges up to 2,750 m. It is known to arrive as early as 21 August and to leave by 22 March, but Hilty and Brown (1986:575) give early April as the latest time. This early departure is as one would expect since the species is one of the earliest warblers to arrive on its breeding grounds. In Antioquia, Johnels and Cuadros (1986:240) found the species only from late September to November, but it is unknown whether these were transients heading farther south or winter residents that changed habitats (see Seasonal Variations, below).

The species apparently is not common in Venezuela, having been noted at only six or seven locations in the mountains from the Distrito Federal west to the Andes of Mérida and Táchira and once in eastern Bolívar (Ridgely and Tudor, 1989:169). Its altitudinal range is from about 200 to 2,500 m and it is known to occur from 3 November to 12 March. Phelps and Phelps (1963:319) give the dates from September to April, but with no specific records.

There are only four sites where the species has been recorded in Ecuador. These range from the eastern edge of the Pacific coastal plain in Esmeraldas and Pichincha through Quito (2,800 m) to the eastern slopes at Baeza (1,525 m), Napo. The only dates of occurrence that have been recorded are 23 November and an unspecified day in April.

In Peru the Black and White Warbler has been found on the Pacific slope, once each in Lambayeque and La Libertad, and once on the eastern slope in Amazonas (Schulenberg and Parker, 1981:215). The dates of observation are 30 August, 5 November, and 24 December.

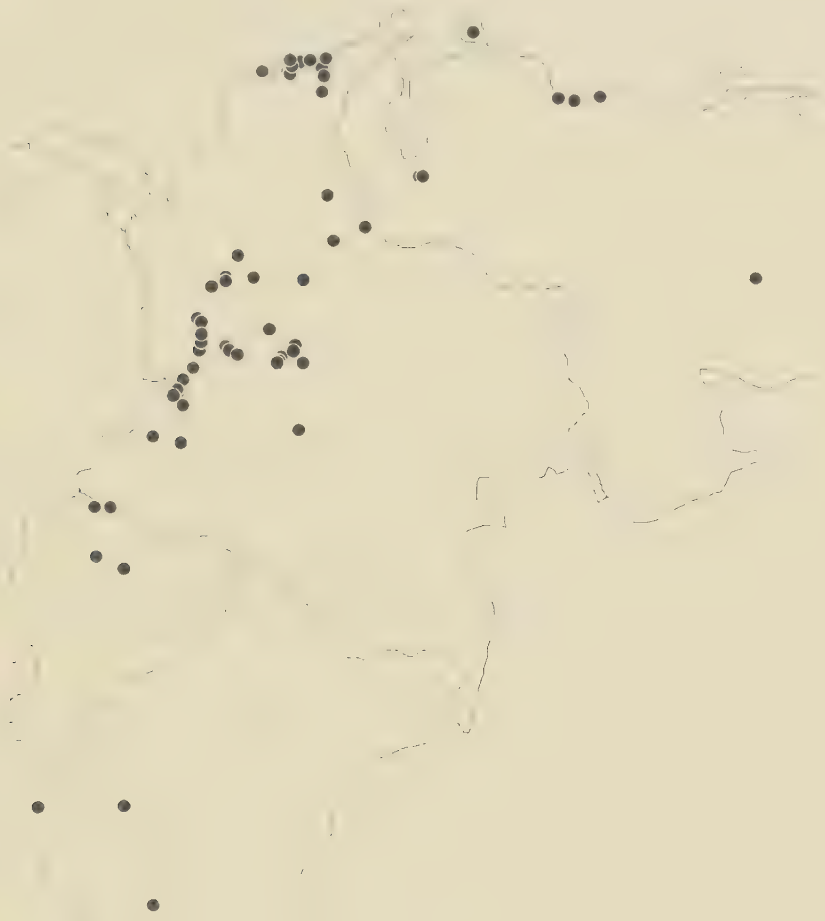

Fig. 28. Distribution of *Mniotilta varia.*

PROTHONOTARY WARBLER

Protonotaria citrea

The Prothonotary Warbler breeds in the eastern United States from Minnesota and central Texas eastward, with the exception of New England and the Appalachians. In the winter it is found on the Yucatán Peninsula, on the Caribbean slope of northern Central America and on both slopes farther south, and in northern South America (Fig. 29). It generally occurs in mangroves and thickets near water.

It appears to be a common winter resident below 1,000 m in the moist lowlands of northern Colombia but has also been found several times within the Andes in drier areas in La Guajira, Norte de Santander, and in the valley of the upper Río Cauca and that of the upper Río Magdalena. Hilty and Brown (1986:580) report a unique record at 3,300 m in the Santa Marta region; I have been unable to confirm this. Russell (1980:250) found that this species, among others, disappeared from the vicinity of Gaira, south of Santa Marta, as the dry season set in. Our records for the country extend from 26 August (Dugand, 1947:634) to 8 April (Johnson,1980:243).

In Venezuela the species is found along the Caribbean coast, sometimes abundantly, and on the western side of Lago de Maracaibo generally close to sea level but on occasion to more than 1,000 m. Birds recorded at higher altitudes, e.g., at Mérida and Rancho Grande, may represent transients. Published records range between 6 September and 7 March, although Meyer de Schauensee and Phelps (1978:316) give April as the last spring date.

Elsewhere on the continent the species is very rare, having been noted once on the coast of Guyana in October and once in the "winter" in the interior close to the Brazilian border (Snyder, 1966:244). There is a single record from the coast of Suriname in January (Haverschmidt, 1968:370) and another in French Guiana, also on the coast, in mid-October (Tostain, et al., 1992:169). There is, finally, a lone report of the bird at Esmeraldas, Ecuador on 7 November (Chapman, 1926:592).

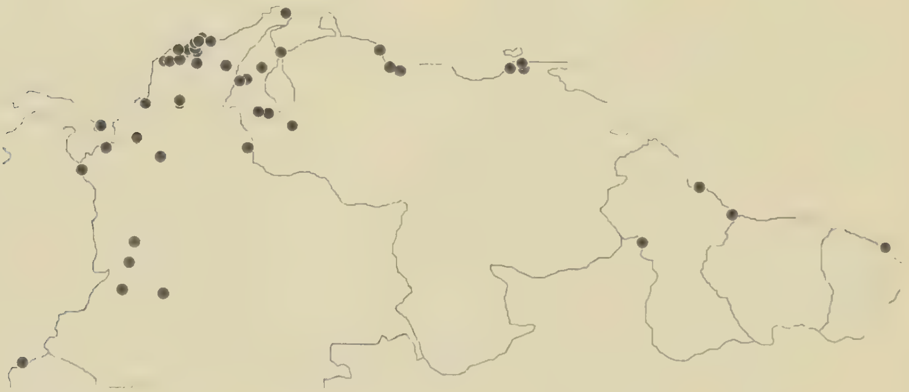

Fig. 29. Distribution of *Protonotaria citrea*.

WORM-EATING WARBLER

Helmitheros vermivorus

This species breeds in the eastern half of the United States, south to central Louisiana and Georgia and winters mainly on the Caribbean slope of Mexico and Central America, as well as in the Bahamas and Greater Antilles.

The only published record for South America (Fig. 30) is a bird collected in mid-October at 1,200 m in the coastal range in Aragua, Venezuela (Lentino, et al., 1984:116).

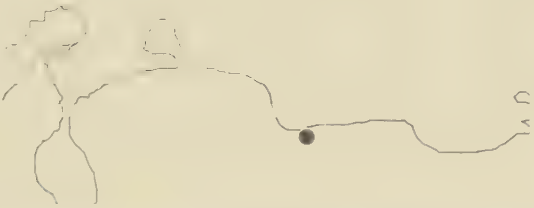

Fig. 30. Distribution of *Helmitheros vermivorus.*

GOLDEN-WINGED WARBLER

Vermivora chrysoptera

This species breeds in southern Canada from Manitoba east to Quebec and in the eastern United States from North Dakota, Michigan, New York, and Connecticut south to Iowa, Ohio, and in the Appalachians, to Georgia. It migrates across the Gulf of Mexico to winter in second growth, edges, and thin forest from Central America to northern South America (Fig. 31).

The Golden-winged Warbler is found in the northern foothills of Colombia in the vicinity of Santa Marta and on the slopes of all three Andean ranges, extending south to Villavicencio on the eastern side and almost to the Ecuador border on the western side. Hilty and Brown (1986:575) describe the bird as being fairly common. It is found at moderate (500 m) to high (2,750 m) elevations. It has been seen from 16 September to 14 April.

The species occurs less frequently in Venezuela, where it has been observed in northern Anzoátegui, south to Táchira. There is a recent report (Ridgely and Tudor, 1989:163) of the species being present in eastern Bolívar. Its altitude ranges from about 500 to 3,300 m. Meyer de Schauensee and Phelps (1978:316) give its dates from September through March.

There is a single observation of the species in Pichincha, Ecuador (Ridgely and Tudor, 1989:163). No details have been published.

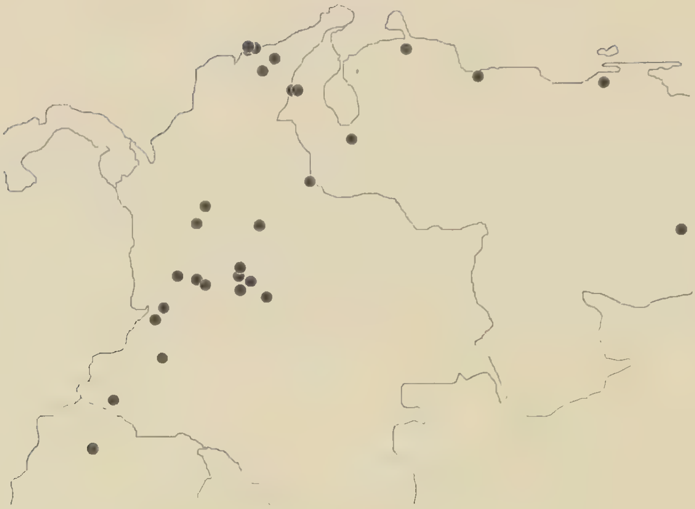

Fig. 31. Distribution of *Vermivora chrysoptera.*

BLUE-WINGED WARBLER

Vermivora pinus

The Blue-winged Warbler breeds from Nebraska to Maine south to Arkansas, Georgia, and Maryland. It winters from southern Mexico south to Panama.

For continental South America (Fig. 32), there is only a single, very old record from Cherúa, at about 1,500 m, on 21 March in the Sierra Nevada de Santa Marta, Colombia (Bangs, 1899:105).

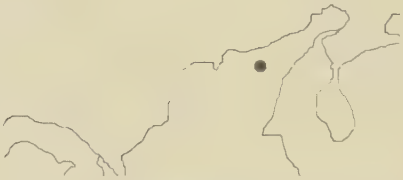

Fig. 32. Distribution of *Vermivora pinus.*

TENNESSEE WARBLER

Vermivora peregrina

The Tennessee Warbler breeds across northern North America, mainly in Canada, from southeastern Alaska east to Newfoundland and south to British Colombia and Maine. It migrates east of the Rockies through eastern Mexico and the Greater Antilles to winter from southern Mexico to northwestern South America (Fig. 33) in lightly forested areas.

In Colombia the species is widespread in the Santa Marta region and in the Andes and on their slopes, ranging from about 500 up to 3,500 m, from Chocó, Magdalena, and La Guajira south to Cauca, Huila, and Meta. It occurs as early as 16 September and as late as 10 May, although the bulk of the nearly 70 records is from the second week in October to mid-April. In a small patch of wet lower montane forest in Antioquia, Johnels and Cuadros (1986:240) found this warbler to be present only from late September to November (see Seasonal Variations, below).

The species had not been found in Ecuador until February 1980 when birds were seen in four localities from 1,400 to 2,400 m in Imbabura, Pichincha, and Napo (Ridgely, 1980:247). It is unknown whether these represent a sudden extension of the winter range or simply the presence of several particularly acute observers. The latter is probably the reason.

In Venezuela Tennessee Warblers seem to be less common, having been found at ten sites, ranging from 500 to 2,300 m, from the Distrito Federal and Miranda west to Zulia and Táchira. Meyer de Schauensee and Phelps (1978:316) give its dates from September to April. Published specific records are for February, March, and 4, 21 April.

Recent work has extended the species' range to French Guiana, when single examples were recorded in March 1988 and December 1991 (Tostain, et al., 1992:169).

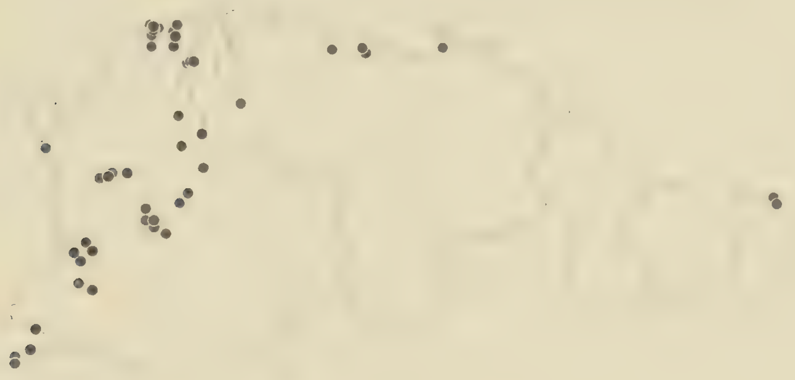

Fig. 33. Distribution of *Vermivora peregrina*.

NORTHERN PARULA

Parula americana

This warbler breeds over most of the eastern half of the United States and contiguous southern Canada. In the winter it occurs from the extreme southern United States, sparingly through Middle America, mainly on the Caribbean side, to Panama, and more abundantly in the West Indies, diminishing in numbers in the Lesser Antilles.

For South America (Fig. 34) there is a single record of the species on Peninsula de Paraguaná, Venezuela, 27 November 1978 (Bosque and Lentino, 1987:269).

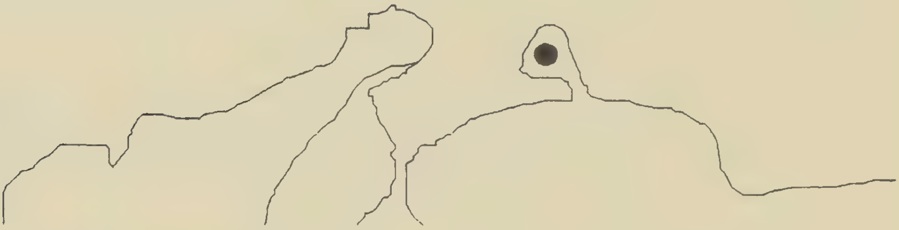

Fig. 34. Distribution of *Parula americana.*

YELLOW WARBLER

Dendroica petechia (aestiva group)

The Yellow Warbler has a breeding range from Alaska to northern South America. Morphologically it may be divided into the *aestiva* (Yellow Warbler) group, the *petechia* (Golden Warbler) group, and the *erithachorides* (Mangrove Warbler) group. There are a number of subspecies recognized within each group. Sometimes each of the groups is treated as a full species. The *aestiva* group, which is of concern here, breeds from Alaska and Newfoundland south to Baja California, central Mexico, and South Carolina. In the winter it occurs from the southern limits of its breeding range through the West Indies and Middle America to northern South America (Fig. 35). It prefers low second growth, riparian areas, gardens, and gallery forest.

It is quite abundant in the western half of Colombia in all three ranges of the Andes and at their bases, from about sea level to as high as 2,600 m, but generally it is at or below 500 m. There is one record from the Amazon, near Leticia (Hilty and Brown, 1986:576). It has been found as early as 26 August and as late as 24 April. Presumably some of these early and late records are of transients, but there is no pattern by which they may be recognized.

It has been found scattered throughout Venezuela north of the Río Orinoco from about 50 to 200 m, very rarely to 1,600 m. It has been seen from 1 October to 3 May, but mainly between November and April.

There are records from two dozen localities in the Guianas, with the reports diminishing in number from Guyana east to French Guiana. The species has been found in Guyana from 2 September to 14 April, while the few reports from French Guiana are from 10 October to 8 December. In Suriname, Penard and Penard (1910:483; Penard, 1927:426) say the species occurs throughout the year, but specimens from May-July that were examined showed no indication of breeding.

The species has been found in nine localities scattered across Ecuador from sea level on the Pacific coast to 2,800 m on the tableland of Pichincha and in the lowlands of the Amazon Basin. These reports extend from 6 November to 20 April.

For Peru there are two late February and mid-March records from the departments of Junín, and Loreto, and two undated reports from Loreto and Ucayali, all on the Amazon slope. The species has been found on 30 December and 14 January at one place in northernmost Bolivia, also in the Amazonian lowlands (Remsen and Ridgely, 1980:73).

In Brazil there are 12 observations of the Yellow Warbler at 11 locations scattered though the northern half of the Amazon Basin. The only dates reported are 26 October, 3 December, and February. Ridgely and Tudor (1989:164) show a locality in extreme eastern Brazil, but give no details.

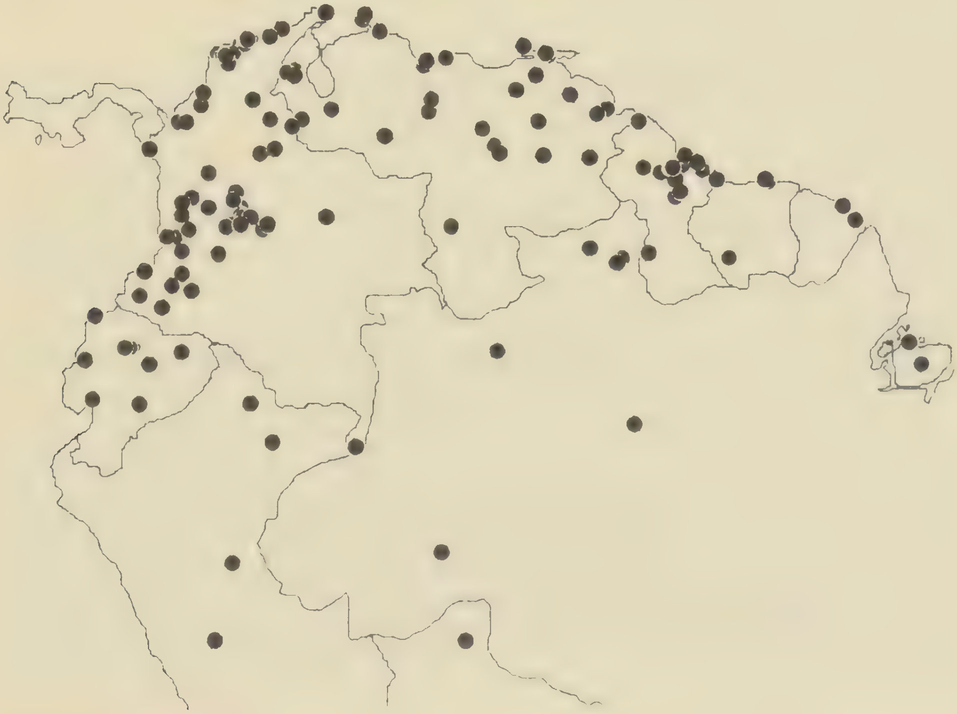

Fig. 35. Distribution of *Dendroica petechia* (*aestiva* group).

MAGNOLIA WARBLER

Dendroica magnolia

The Magnolia Warbler, a species of coniferous forests, breeds through most of Canada, in the northeastern United States, and south in the Appalachians. It is found in the winter from Mexico through Central America to Panama.

The species was unknown in South America (Fig. 36) until December 1952 when Borrero and Olivares (1955:71) collected a specimen at 2,045 m on the western slope of the Eastern Andes at Soatá, Boyacá, Colombia. Subsequently the species has been seen on the coastal plain in late March at Ríohacha, La Guajira and at Sevilla, Magdalena, and in February at Parque Nacional Tairona (Hilty and Brown, 1986:578). There is also a sighting (no date) from Aragua, Venezuela (Ridgely and Tudor, 1989:494).

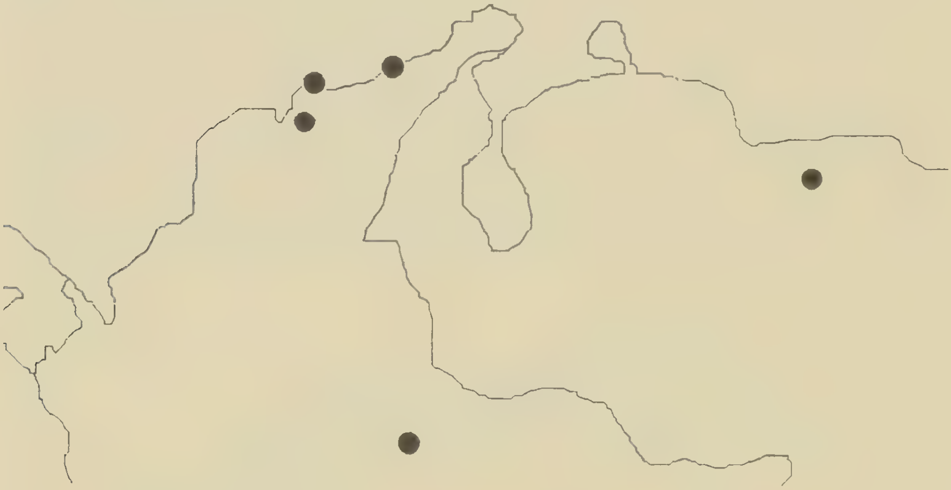

Fig. 36. Distribution of *Dendroica magnolia.*

BLACK-THROATED BLUE WARBLER

Dendroica caerulescens

Black-throated Blue Warblers breed in southeastern Canada and the northeastern United States down through the Appalachians. They winter primarily in the Bahamas and Greater Antilles, with a scattering of records from Isla Cozumel, Quintana Roo and from the Caribbean slope of Central America from Guatemala to Costa Rica. The species barely reaches South America (Fig. 37).

In Colombia a specimen was collected on 16 December 1898 at 1,400 m at Las Nubes, Magdalena, in the northern foothills of the Sierra Nevada de Santa Marta (Todd & Carriker, 1922:452) and three more in mid-January 1968 at about 100 m near Titujura at the northeastern base of Serranía de Macuira, in arid extreme eastern La Guajira (Marinkelle, 1970:30).

In Venezuela it has been found in Aragua, once on the Caribbean coast at Independencia on 27 October (Wetmore, 1939:25) and once a short distance inland at Rancho Grande, at 1,000 m, on 21 April (Beebe, 1947:158), and in Guárico on Cerro Platillón, at an unknown altitude, on 13 November (Phelps, 1973:34).

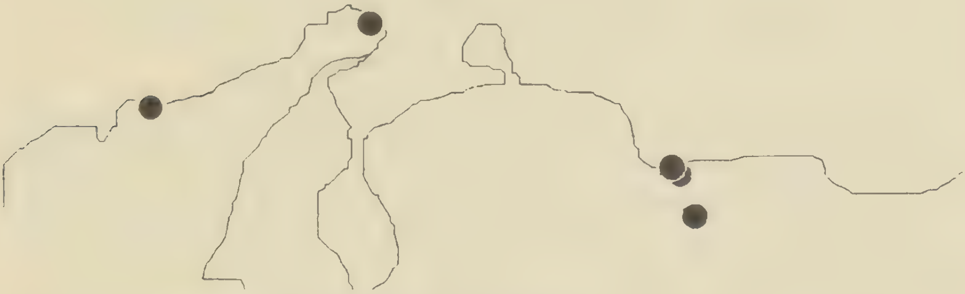

Fig. 37. Distribution of *Dendroica caerulescens.*

YELLOW-RUMPED WARBLER

Dendroica coronata

The Yellow-rumped, or Myrtle, Warbler is a breeding species over much of North America south to northern Mexico and through the mountains to Guatemala. In the winter it withdraws from its most northern range and also is found in the West Indies and south in Central America, irregularly, but sometimes in great numbers, to Panama. Its occurrence in South America (Fig. 38) seems to be rare.

There is one record from 30 April in Delta Amacuro, Venezuela (Phelps, 1973:34). In Colombia there are several from Magdalena (Meyer de Schauensee, 1951:968; Johnson, 1980:243), where a series of observations at around 2,000 m in a limited area on seven days, from 16 January to 1 May 1973, may indicate the species is more common than previously believed. Or, it could be that the species was unusually abundant that year, indicative of a population fluctuation similar to those noted at other times in western Panama (Wetmore, et al., 1984:273).

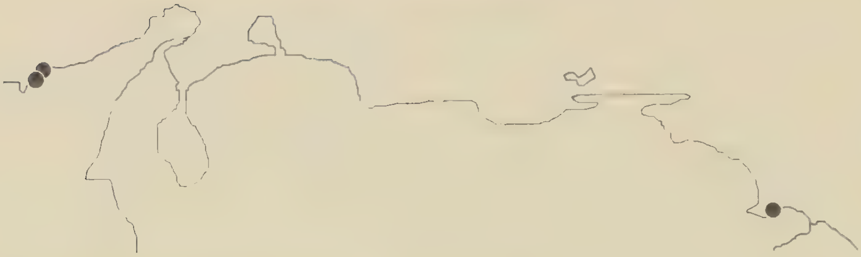

Fig. 38. Distribution of *Dendroica coronata.*

BLACK-THROATED GREEN WARBLER

Dendroica virens

The Black-throated Green Warbler breeds in coniferous or mixed coniferous-deciduous forests across most of southern Canada and in the eastern half of the United States from Minnesota and Maine south to Alabama and South Carolina In the winter the species occurs from southern Texas, southern Florida, the Bahamas, Cuba, and Jamaica south through eastern Mexico, Central America, and Trinidad. It just reaches northern South America (Fig. 39).

It has been seen in Colombia several times in the vicinity of Bogotá and numerous times in the Santa Marta region of Magdalena. With the exception of a 1912 record from Cincinati, Magdalena (Todd & Carriker, 1922:452), all other reports are from late 1972 onward, roughly corresponding to the blossoming of bird watching in Colombia by North Americans. It is unlikely that the recent increase in sightings reflects a genuine change in the wintering population. All the reports are at altitudes from roughly 1,500 to 2,600 m, and from 1 November to 12 April.

From Venezuela there are only two reports, one from 11 November 1968 at sea level in Zulia (Phelps, 1973:35) and one from 2 January 1984 at about 1,000 m in Aragua (Altman, et al., 1984:878).

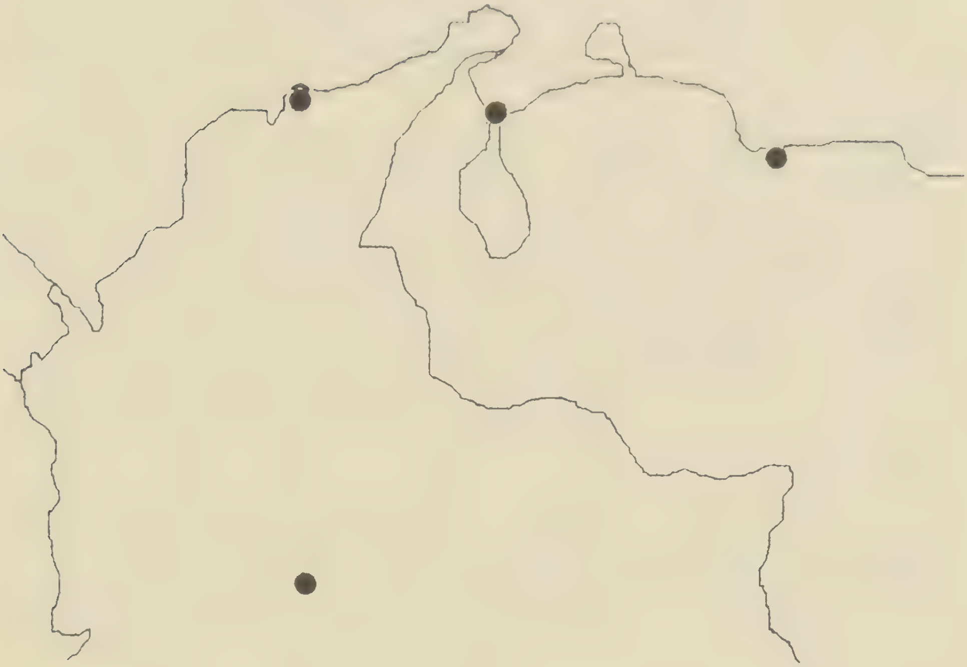

Fig. 39. Distribution of *Dendroica virens.*

CERULEAN WARBLER

Dendroica cerulea

This is a species that breeds east of the Great Plains in high forests within the drainage of the Ohio and Mississippi rivers. It is an early season migrant, passing through the eastern United States, Cuba, and Jamaica and across the Caribbean and along the Caribbean side of Central America to winter in wet forest on the slopes and foothills (Robbins, et al., 1992:558) in northern and western South America (Fig. 40), and occasionally north to Panama and Costa Rica.

In Venezuela it is said (Meyer de Schauensee & Phelps, 1978:318) to be a winter resident from September to March, although I have specific records only from November and February. It has been found across the northern part of the country from Sucre westward and along the Colombia/Venezuela border at altitudes from 300 to 1,900 m. It also has been seen in the winter on the tableland of eastern Venezuela (Robbins, et al., loc. cit.) but no details have yet been published.

In Colombia it has been found about 31 times from 8 October to 16 May. However, half of these observations were made by one person (Johnson, 1980) from one locality in Magdalena. These span the entire season and seem to indicate that this is either a particularly favorable wintering site or the observer was unusually skillful in finding the species. The latter may be true. Cerulean Warblers range in the country from about 700 m to about 2,300 m in the Sierra Nevada de Santa Marta and on the slopes of all three Andean ranges.

The Ecuadorian occurrence of this species is to the east of the Andes from 300 m up to perhaps 2,000 m. There have been only eight published observations of Cerulean Warblers in Ecuador. These range from 10 August to 31 March (Chapman, 1926:594).

Peruvian records are again from the eastern slopes of the Andes. Good altitudinal records are scarce, but it seems the species ranges from about 100 to 2,500 m, although in southeastern Peru it is said to be confined to altitudes between 520 and 1,300 m and to represent one of the narrowest altitudinal ranges of any Andean bird (Robbins, et al., op. cit.:559) It does not seem to be so restricted elsewhere. It has been seen as early as 30 September and up to 15 March.

In northern Bolivia the bird has been taken on the Andean slopes from about 200 to 2,150 m. There are a few dated records; these are from mid-October to early December.

On 24 October 1980 a Cerulean Warbler was seen at 300 m in Serra do Tinguá, Rio de Janeiro and on 13 November, two kilometers away, a presumably different bird (Scott & Brook, 1985:128). These are the first specific reports for Brazil and about 2,600 km east of the previous continental record. Stotz has also found the Cerulean Warbler in southeastern Brazil (Robbins, et al., 1992:558), but no specific information is available.

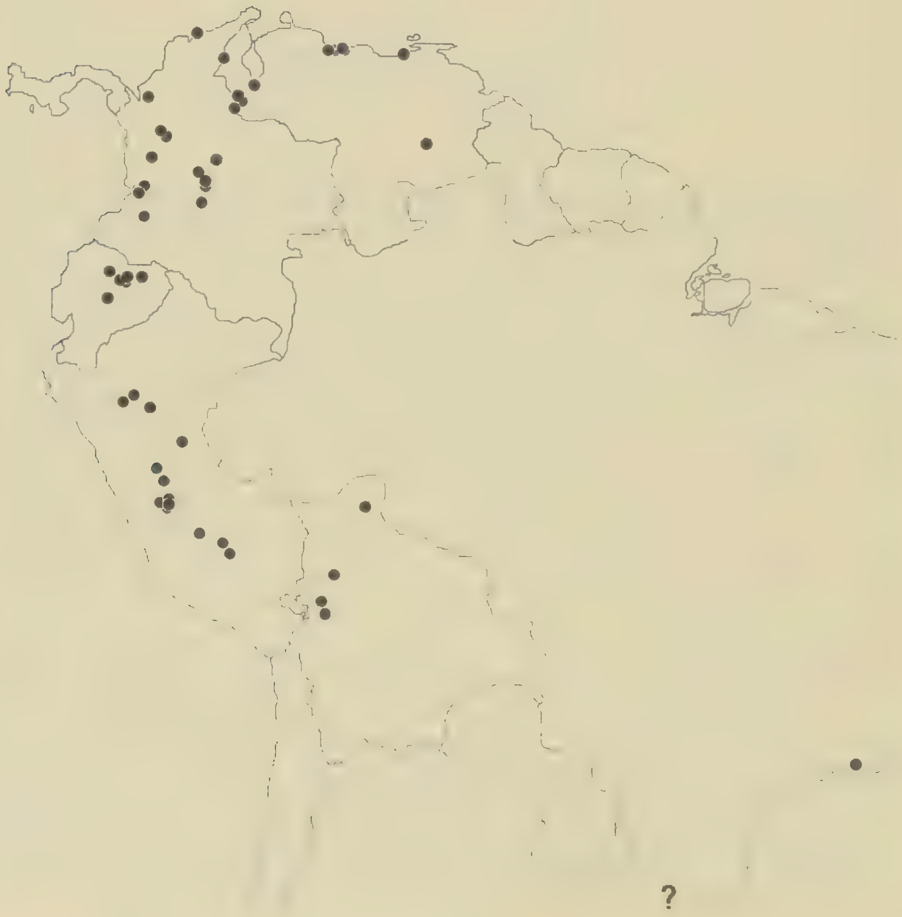

Fig. 40. Distribution of *Dendroica cerulea*.

BLACKBURNIAN WARBLER

Dendroica fusca

The Blackburnian Warbler breeds from Alberta to Nova Scotia and south to Manitoba, Michigan, Ontario, the Appalachians, and New England. In migration it passes through eastern Mexico, Central America, and the Greater Antilles. It winters in patchy forest from Costa Rica south to Bolivia and Brazil (Fig. 41).

This species is one of the most common of the warblers wintering in South America, and is particularly abundant in Colombia where it is found in the Andes, in the Santa Marta region, and once in the llanos of Meta. It has been seen close to sea level, presumably while migrating, but occurs most frequently from 1,000 to 2,500 m, and it reaches to 3,650 m fairly regularly. The species has been recorded over an eight and a half month span, from 1 September to 13 May.

Blackburnian Warblers are much less common in Venezuela but do occur in the Andes, generally at about 1,000 m, and also have been found on two table mountains in Amazonas. Published records extend from an unspecified date in November to 30 April.

The species has not yet been found in Guyana but recently has been recorded once in Suriname in late December (Donahue, 1985:230) and once in French Guiana in late February (Tostain, et al., 1992:170).

Dendroica fusca has been known in Brazil for some time from Roraima (Sick, 1993:56), but recently has been noted far to the south in Amazonas (Stotz, et al., 1992:618), Espíritu Santo (Parker, 1983:274), and Ceará (Teixeira, et al., 1993:51). Once again these new records probably do not indicate a change in the species usual range, but rather reflect the presence of skillful observers.

In Ecuador the bird occurs mainly in the tableland and on the eastern side of the Andes down to about 600 m, although most often much higher. In spite of Chapman's statement (1926:594) to the contrary, the species must be uncommon on the lower western slope as there are records from only three localities, two of which are very recent (Western Found. Vert. Zool.; Parker and Carr, 1992:28). Blackburnian Warblers have been found in Ecuador from 8 October to 10 May.

The species seems to be less common in Peru where it occurs mainly in the north and in the Amazon drainage, from about 100 m up to 2,500 m, although Robbins, et al. (1992:559) give the range in southeastern Peru as 800 to 3,000 m, and most commonly between 1,400–2,500 m. The dates extend from an unspecified day in October to 19 April.

There are three reports of Blackburnian Warblers in the department of La Paz, Bolivia, one at an unknown altitude and with an unknown date, one on 19 January, also bearing no altitude (Remsen and Traylor, 1983:97–98), and one at 2,050 m on 17 March (Parker, et al., 1980:162).

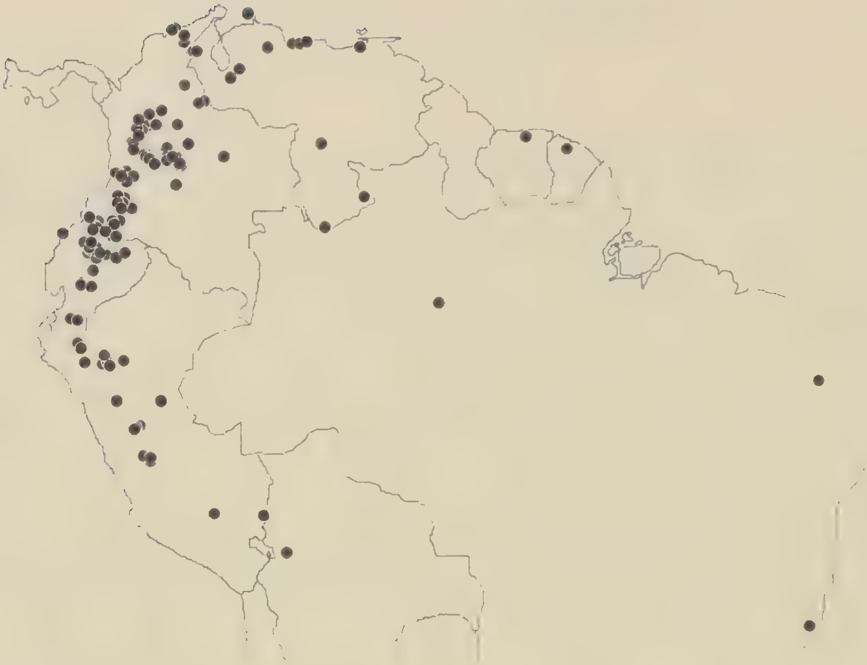

Fig. 41. Distribution of *Dendroica fusca.*

YELLOW-THROATED WARBLER

Dendroica dominica

Yellow-throated Warblers breed in the southeastern United States and the Bahamas and winter from the southern part of the breeding range through the Greater Antilles and Central America. They are uncommon from Costa Rica southward and have been recorded only twice in South America (Fig. 42), both in northern Colombia in the Atlantic coastal region. It was taken once in Atlántico on 23 December (Easterla and George, 1970:473) and seen once in Magdalena in October (Russell, 1980:251).

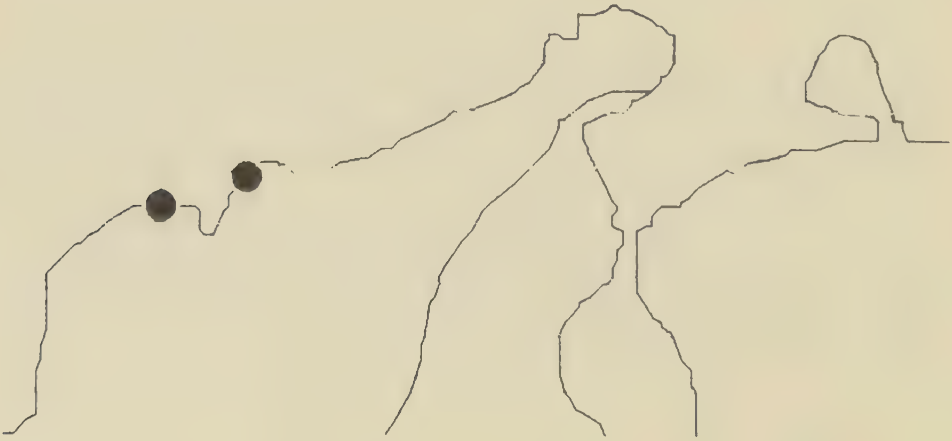

Fig. 42. Distribution of *Dendroica dominica.*

CHESTNUT-SIDED WARBLER

Dendroica pensylvanica

The Chestnut-sided Warbler breeds in deciduous growth in southern Canada from Alberta eastward and south in the eastern United States to North Dakota, Illinois, the Appalachians, and New Jersey. It winters from southern Mexico through Central America and casually in the northwestern corner of South America (Fig. 43).

It has been found several times at two or more localities in Miranda and Aragua, Venezuela (Ridgely and Tudor, 1989:167), although the only specific record known to me is from the coast at Ocumare de la Costa, Aragua, on 15 April (Phelps and Phelps, 1963:324).

For Colombia there are three widely distributed records in October and November from Santander (Borrero and Hernández, 1957a:212; 1957b:358), Tolima (Meyer de Schauensee, 1959:71), and Valle del Cauca (Orejuela, et al., 1980:257). These localities range from 535 m to 950 m.

There is apparently only one record from Ecuador, that being in Pichincha (Ridgely and Tudor, 1989:167); the precise locality and date are unrecorded.

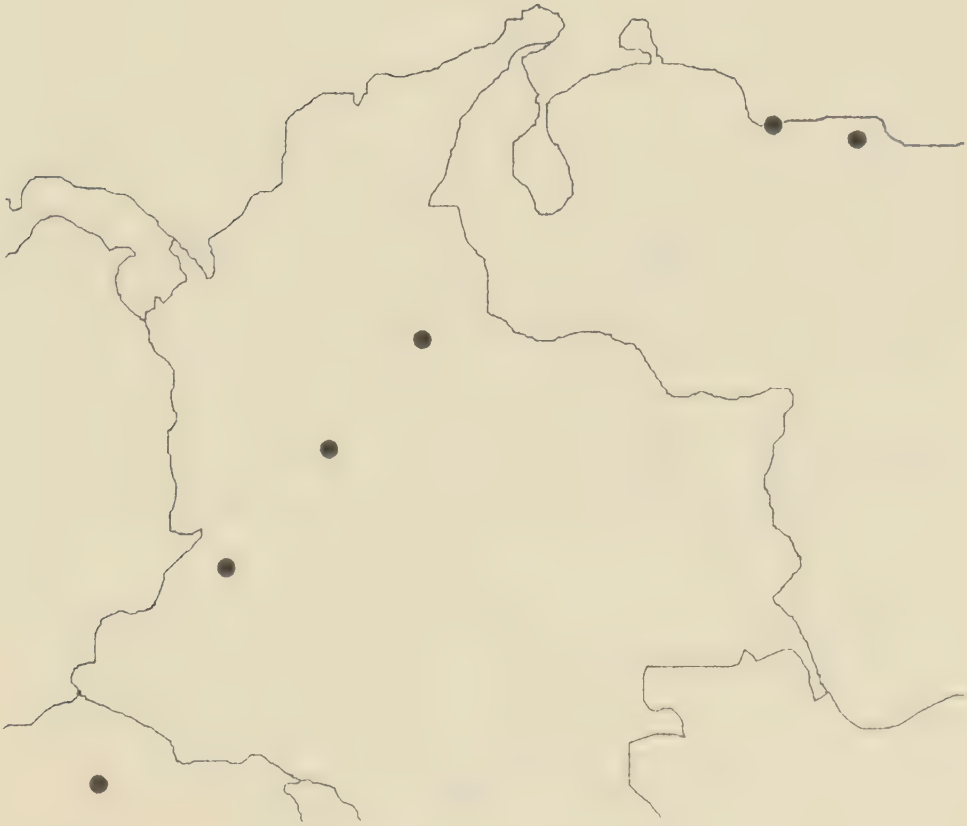

Fig. 43. Distribution of *Dendroica pensylvanica*.

BAY-BREASTED WARBLER

Dendroica castanea

The Bay-breasted Warbler breeds mainly in the coniferous forests across Canada and in the northeastern United States. Its winter range is constricted. It occurs in the lowlands of Panama and on Trinidad, but is primarily a species of Colombia and western Venezuela (Fig. 44), where it frequents second growth and light forest.

In Venezuela there are reports of the species from nine localities from Dependencia Federal west through Aragua, Mérida, and Táchira, ranging from sea level to about 1,000 m. Meyer de Schauensee and Phelps (1978:319) place it as resident from November to May.

The main range of the Bay-breasted Warbler is in Colombia, primarily in the western Andes and the northern and western lowlands, but it also occurs in the other two Andean ranges and in the interAndean valleys, although not so far south as in the west. It ranges from sea level to close to 1,800 m, but most records are from below 1,000 m. It has been found from 17 September until 29 April.

There are reports of the species from only two locations in Ecuador. Both observations (Parker and Carr, 1992:23; Ridgely, 1980:247) are recent and both were made by skillful observers, one in the Pacific lowlands in late January and one near the eastern base of the Andes in late February.

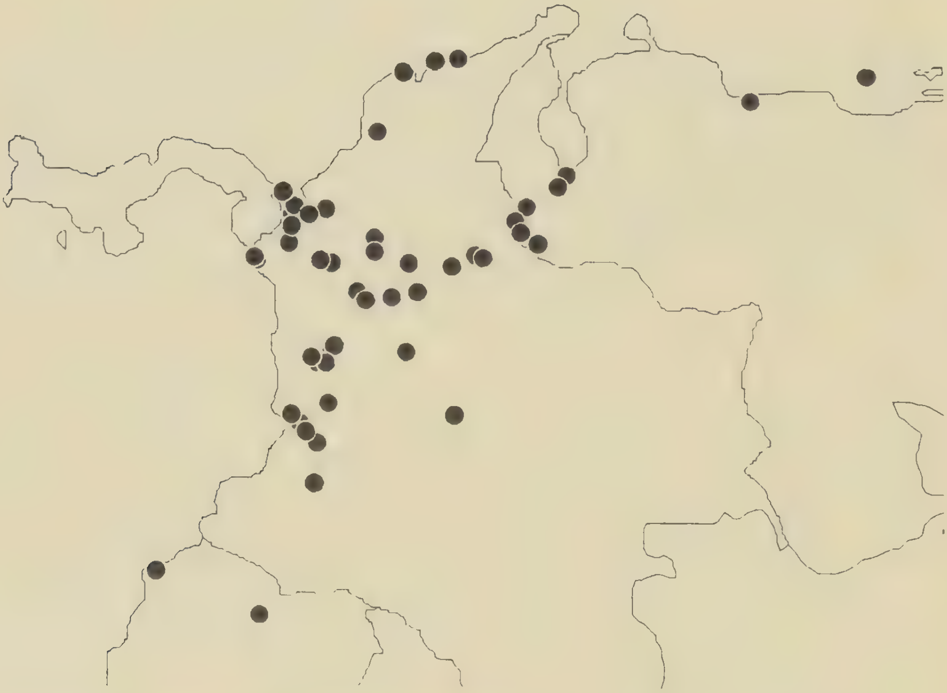

Fig. 44. Distribution of *Dendroica castanea*.

BLACKPOLL WARBLER

Dendroica striata

The Blackpoll Warbler breeds in coniferous forests across Canada and Alaska and in the northeastern United States south to New York, New Hampshire, and Maine. It migrates in the fall to the Maritimes and New England and then out to sea and over the Lesser Antilles to South America (Fig. 45), and occasionally to Panama. In the spring it passes through the West Indies and the eastern half of the United States. Its preferred winter habitat is light forest and edges.

In Colombia it has been found commonly in the north, rarely within the Andes or west of the Western Andes, and in many localities on the lower slopes on the eastern side of the Eastern Andes and adjacent lowlands. There are no reports from the southeastern part of the country, but this may be because of the paucity of observers. The species has been recorded from 4 September until 27 April and at altitudes from sea level to 2,750 m, but mainly below 1,000 m.

The species is widely distributed in Venezuela, occurring in the Andes up to 1,600 m and in the coastal range, but most commonly in the llanos and on the table mountains. Its dates are from 13 October to 16 May.

There is a scattering of records from the Guianas, including four recent ones from French Guiana (Tostain, et al., 1992:170) which suggest that, while uncommon, the species occurs regularly and awaits recognition by good observers.

In Ecuador the species has been seen several times in the eastern lowlands from December to 10 April.

For the rest of the continent there are scattered records from Peru, Bolivia, Chile, Argentina, Uruguay, Paraguay, and Brazil, which seem to indicate a wide but very sparse distribution. There is a loose cluster of reports from northernmost Brazil, at roughly the same latitude as the Venezuelan records. Blackpoll Warblers may occur in northern Brazil with the same frequency as in southern Venezuela. There are records of the species as late as 31 May in Argentina, 20 May in Peru, and 16 May in Brazil which seem very tardy if the birds were intending to migrate.

The single report from Chile (Landbech, 1864:56) is of a bird taken on 17 June, the latest, as well as southernmost, record, for the continent. This may be a case of an individual migrating in reverse of its normal direction.

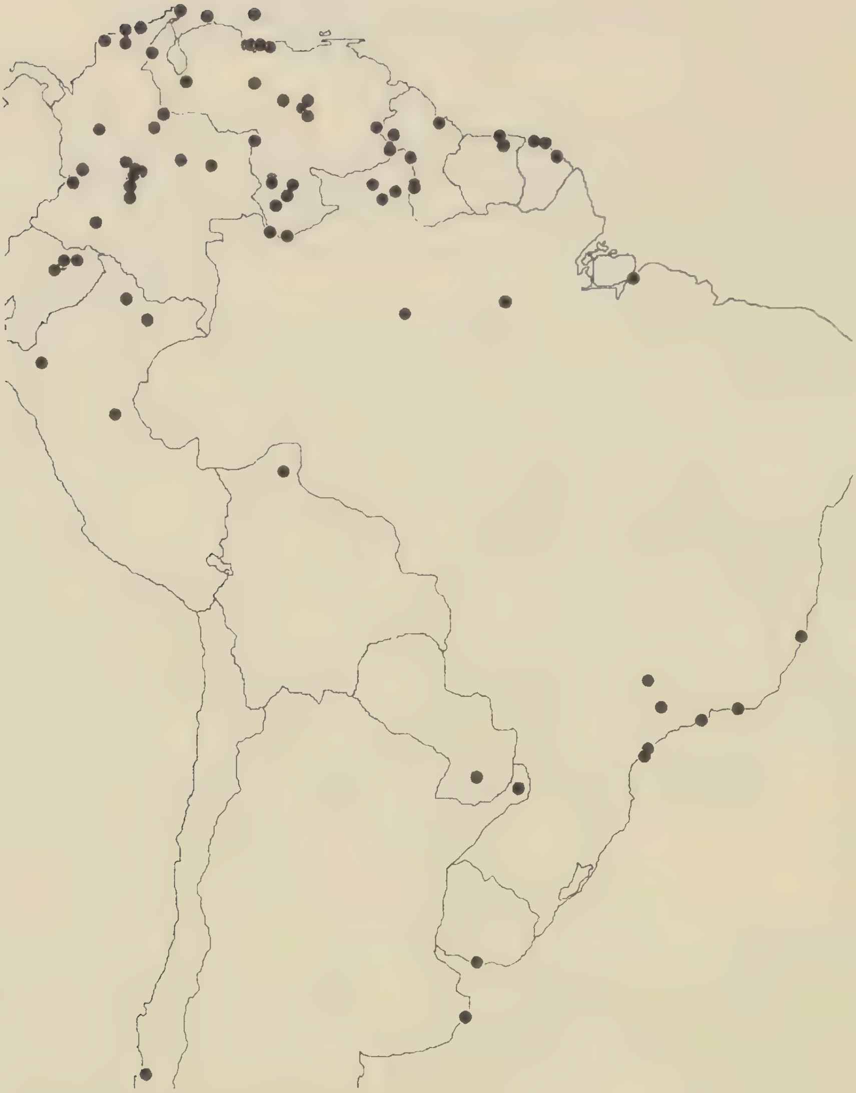

Fig. 45. Distribution of *Dendroica striata.*

PRAIRIE WARBLER

Dendroica discolor

The Prairie Warbler, a species frequenting scrubby growth, breeds through much of the southeastern United States. It winters in southern Florida, in the West Indies south to Martinique, and on the Caribbean islands off Mexico and Central America. It occurs very casually on the mainland of Central America to western Panama.

Only twice has it been reported in South America (Fig. 46). Both instances were in northern Colombia, once at 70 m on 27 January 1975 at Tanela, Chocó, on the western side of the Golfo de Urabá (Serna and Rodríguez, 1979:1) and once at sea level on 27 or 28 August 1977 at Moñitos, Córdoba, on the shore of the Caribbean (Serna, 1980:85).

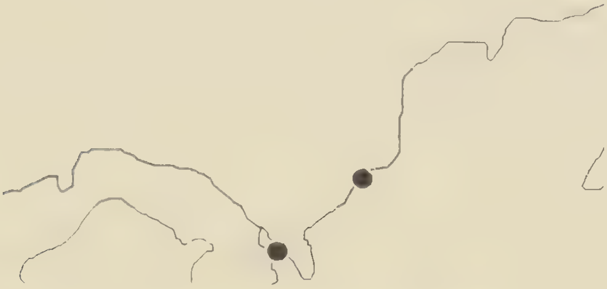

Fig. 46. Distribution of *Dendroica discolor.*

TOWNSEND'S WARBLER

Dendroica townsendi

Townsend's Warbler, a species breeding in the coniferous forests of northwestern North America, winters from California through the highlands of Mexico and Central America to western Panama. It is known to appear occasionally well beyond its usual range.

The sole published record for South America (Fig. 47) is a bird collected in Colombia on the tip of the Guajira Península at the base of Serranía de Macuira in mid-January 1968 (Marinkelle, 1970:30).

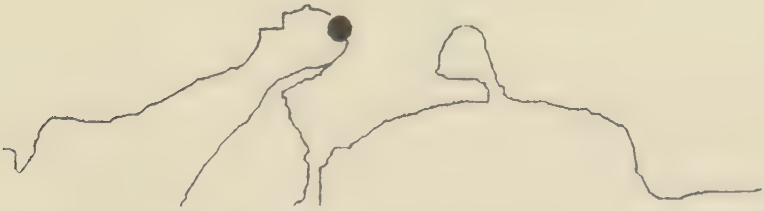

Fig. 47. Distribution of *Dendroica townsendi.*

PALM WARBLER

Dendroica palmarum

The species breeds in open areas within boreal forests across most of Canada and adjacent regions of the northernmost United States. It winters from the southeastern United States and the Bahamas to the Greater Antilles and islands off the Caribbean side of Middle America. There are, as well, scattered records from Honduras, Nicaragua, and Panama.

There is a single, very recent, report of the species in Colombia (Fig. 48) at Turbo on the Golfo Urabá, close to the Panamanian border on 13 October 1990 (Pearman, 1993:72). This is the first time the species has been seen on the continent.

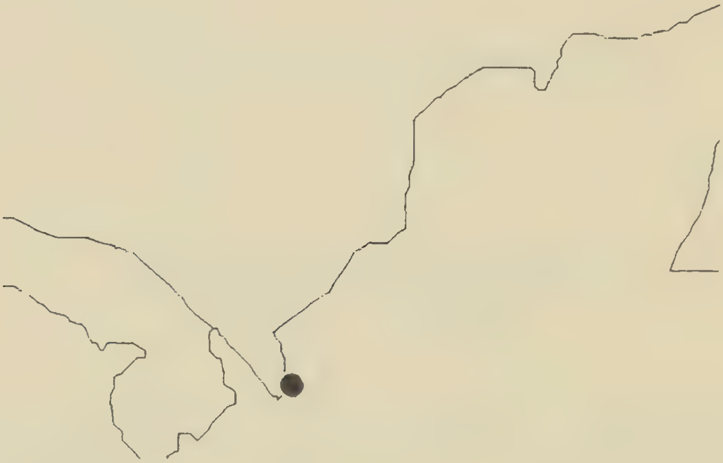

Fig. 48. Distribution of *Dendroica palmarum.*

CAPE MAY WARBLER

Dendroica tigrina

The Cape May Warbler breeds in the coniferous forests across central Canada south to the extreme north of the eastern United States. Its winter quarters are from Florida and the Bahamas through the Greater Antilles and, to a lesser extent, in Central America and its associated islands.

For South America (Fig. 49), with the exception of the off-shore islands of Venezuela, there is but one specimen record, that being a bird collected on 31 December 1970, 10 km west of Chichiriviche, Falcón, Venezuela (Lentino, et al., 1984:115). There is also a January sight record for the Distrito Federal and a March observation in Portuguesa, Venezuela (Lentino, et al., loc. cit.). In Colombia two birds were seen on 3 February 1977 at Parque Nacional Tairona, Magdalena (Hilty and Brown, 1986:578).

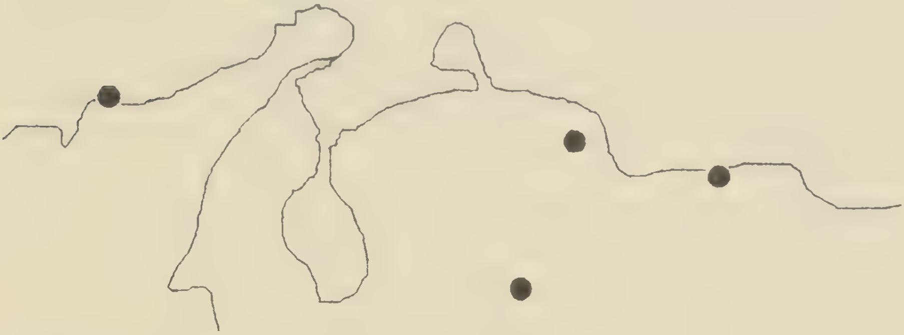

Fig. 49. Distribution of *Dendroica tigrina*.

OVENBIRD

Seiurus aurocapillus

Ovenbirds breed in deciduous forest across central and southern Canada and south in the midwestern and eastern United States to Colorado and South Carolina. Its winter range is from northern Mexico and the Gulf Coast through the West Indies and Central America to Panama and, in small numbers, in northernmost Colombia and Venezuela (Fig. 50).

In Colombia it is known from several reports at low altitudes in Magdalena (Todd and Carriker, 1922:449; Hilty and Brown, 1986:580) and once from the tip of La Guajira (Andrade and Mejia, 1988:166). These records are from 4 October to February.

The species has been found in Venezuela at two localities on the Península de Paraguaná (Barnés and Phelps, 1940:30; Bosque and Lentino, 1987:269) and at one place in the central range of Aragua (Beebe, 1947:158). The dates range from 22 October to 22 April.

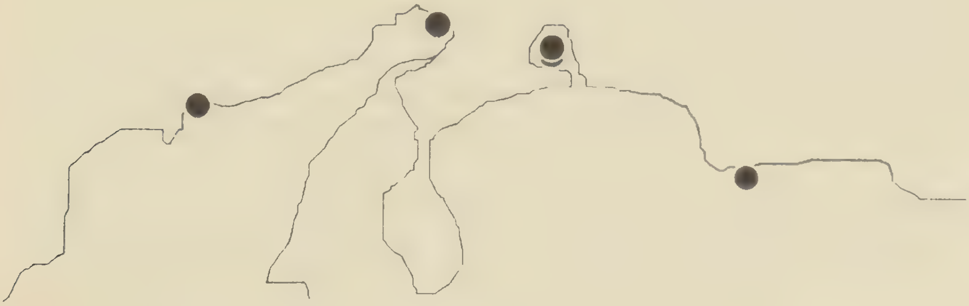

Fig. 50. Distribution of *Seiurus aurocapillus*.

NORTHERN WATERTHRUSH

Seiurus noveboracensis

The Northern Waterthrush has an extensive breeding range from Alaska across northern Canada to Newfoundland and southward to the northern edge of the United States in the west and to New York and New England in the east. In the winter it occurs in the vicinity of water from Mexico and southern Florida through Central America and the West Indies to northern South America (Fig. 51).

It is a common winterer in Colombia, occurring from sea level to 3,000 m in wet areas throughout the country, except in the southeast. It has been found from 8 September to May.

The species is also common in Venezuela, having been recorded from most of the country, except for southern Amazonas and Delta Amacuro. It is rarely seen above 1,000 m and has been reported from 5 September to 22 May. There is a report of a Northern Waterthrush being present in Caracas from 15–21 June (Schwartz, 1964:173); presumably this bird was not returning north.

In the Guianas the Northern Waterthrush becomes less common from west to east and has not been found in the southern parts of these countries. It had not been reported for French Guiana prior to 1982, reflecting the earlier absence of competent observers. There are few dates recorded; these range from October to 26 April.

There is a single November record from Pará, Brazil (Sick, 1993:561).

In Ecuador there are a few records from the northern half of the country in the lowlands on either side of the Andes, and one report at 1,500 m on the western slope (Lévêque, 1964:60). The dates range from 1 November (Chapman, 1926:595) to 24 January (Parker and Carr, 1992:76)

There are two undated reports of the Northern Waterthrush from the mouth of the Río Curaray, Loreto, Peru (Zimmer, 1949:8). The locale is unusual in that it is well down in the Amazon Basin.

The species was seen once (August 1988) in the province of Buenos Aires, Argentina (Moschione, 1988). The date, as well as distance from the previously known range, suggest this bird was lost, perhaps having migrated south when it should have gone north.

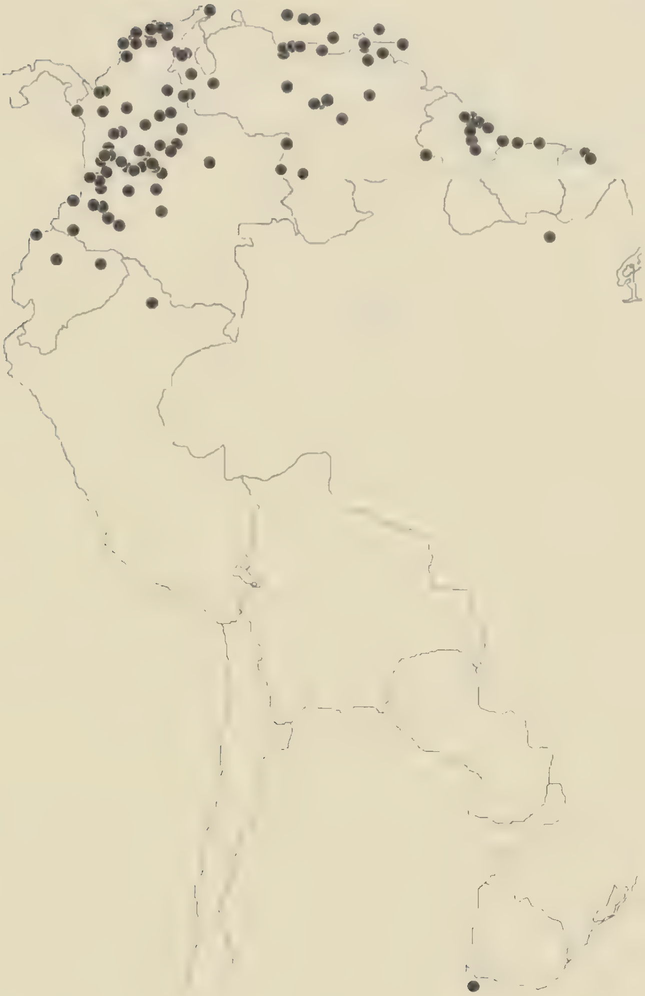

Fig. 51. Distribution of *Seiurus noveboracensis.*

LOUISIANA WATERTHRUSH

Seiurus motacilla

The Louisiana Waterthrush breeds over the eastern half of the United States with the exception of the Gulf Coast and southeastern coastal plain. Its fall migration begins in July and it winters in the West Indies and from Mexico through Central America, with decreasing frequency, to Panama, rarely to Colombia and Venezuela (Fig. 52).

The species has been found about ten times in Colombia, six of which were in the department of Magdalena and once each in La Guajira, Cundinamarca, Meta, and Valle del Cauca. It ranges up to 2,600 m; its dates of occurrence, so far as are known, are from 1 September to 4 February, but presumably it occurs later.

For Venezuela there are only two published reports, one from Lara in October (Phelps and Phelps, 1963:326) and one from Aragua on 11 September (Lentino, et al., 1984:116).

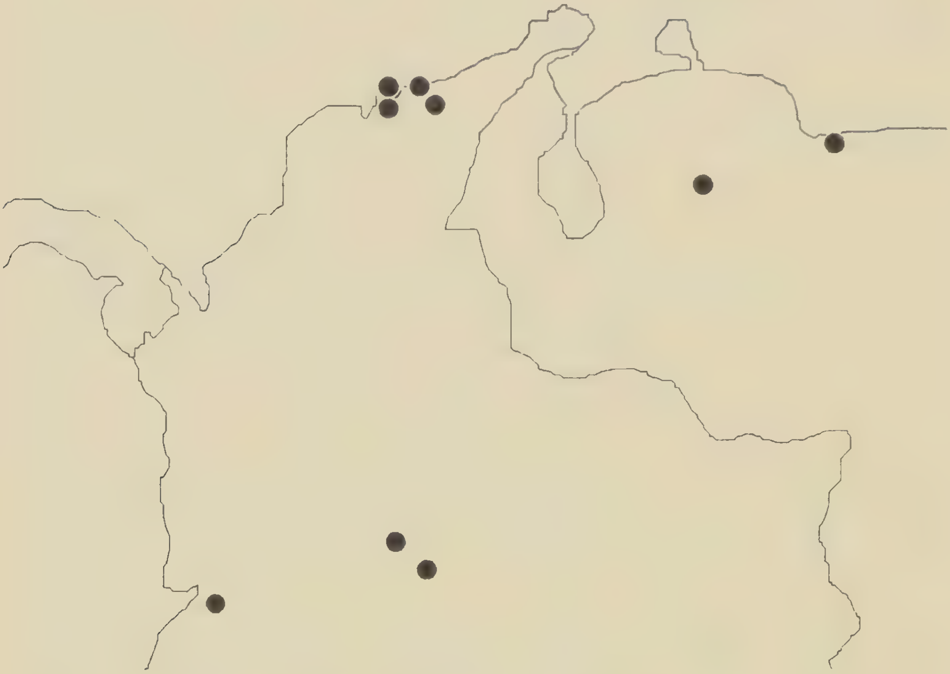

Fig. 52. Distribution of *Seiurus motacilla.*

KENTUCKY WARBLER

Oporornis formosus

This warbler breeds in the eastern half of the United States, except for most of New England, and most of Florida. The winter range is from southern Mexico through Central America and, uncommonly, Colombia and western Venezuela (Fig. 53).

For Colombia there are several reports from Magdalena, one from Cesar, and one from Santander. These range from 7 October to 28 January, but the species probably is present much later. The highest altitude recorded is 1,600 m.

The species is known from western Venezuela in the states of Mérida and Zulia, from 100 m to 1,200 m. Meyer de Schauensee and Phelps (1978:320) note its presence from October to March and also include Táchira and Aragua in the range, but I have been unable to find specific records for these states.

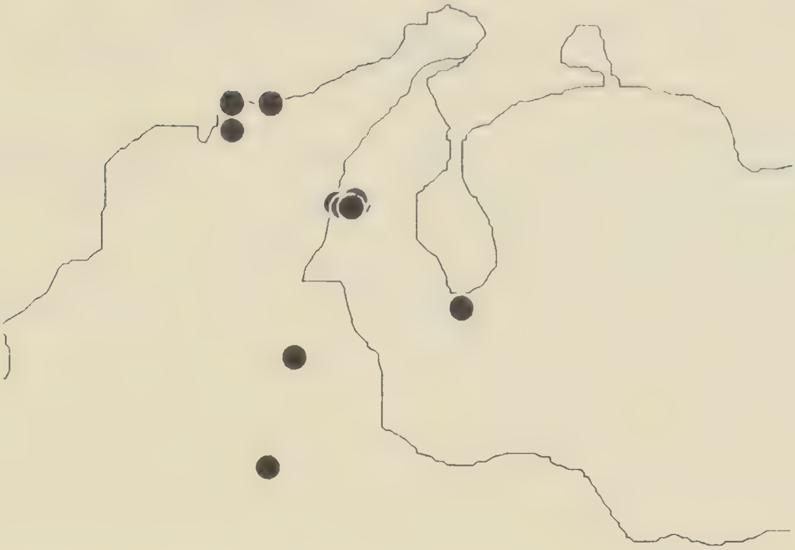

Fig. 53. Distribution of *Oporornis formosus.*

CONNECTICUT WARBLER

Oporornis agilis

This species breeds in spruce/tamarack bogs in a narrow band across central southern Canada and in the United States from Minnesota east to Michigan. It appears to make a non-stop migration from the southern United States to South America. Here it winters in second growth and edges, often within the rainforest, over an area greater than that of its breeding grounds (Fig. 54). The relatively small population, widely dispersed in a poorly studied habitat, undoubtedly accounts for the sparsity of records.

There are three records from the lowlands of Magdalena, Colombia, all in mid-October, and one record from eastern Vichada, on the Venezuelan border, in late April. There are recent reports (Hilty and Brown, 1986:582) of the species in central and western Meta in December and January. It would appear that the Connecticut Warbler is a transient in the northern part of the country and overwinters in the humid forests of the southeast.

In Venezuela there have been a few more reports, scattered from Zulia east to Bolívar near the Guyana border, and ranging up to 4,200 m in Mérida. All are for the month of October except for birds found in the vicinity of Mérida in January (Cooper, in litt.), and in the coastal range in Miranda on 27 April and in Aragua on 29 April. The species seems only a transient in coastal Venezuela; it would not be unexpected if eventually it is found wintering farther south in Barínas, Apure, and Amazonas.

For French Guiana there is a recent report (Tostain, et al., 1992:170) of the species on the coast on 5–6 May, an obvious transient.

There are two published reports of Connecticut Warblers in Peru well down in the Amazon Basin in Huánuco and Madre de Dios. The Huánuco record (Parker, et al., 1978:55) is without a date; the Madre de Dios bird was netted on 17 November (Parker, 1982:491).

There are few records for Brazil (Sick, 1993:561). These are from Amazonas, Rondônia, and Mato Grosso with the following dates, 16 November, 26 December, 2 January, 9 April.

From these rather meager records it seems that *Oporornis agilis* winters mainly on the edges of the Amazon Basin and is the only North American Passerine whose range is primarily in this area.

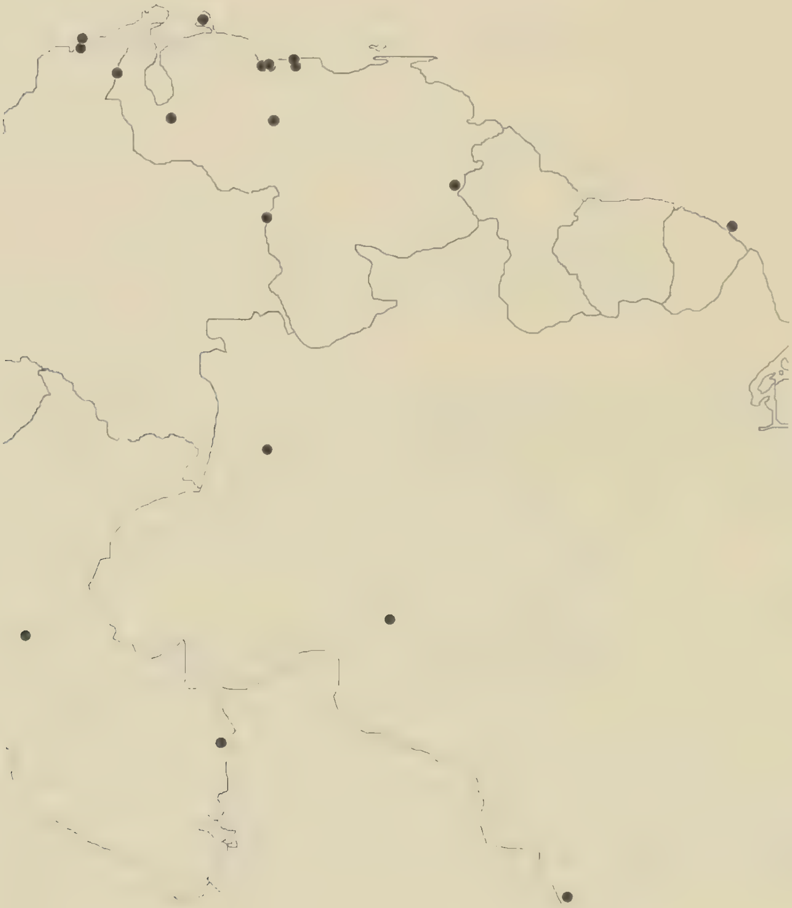

Fig. 54. Distribution of *Oporornis agilis.*

MOURNING WARBLER

Oporornis philadelphia

This warbler breeds in disturbed deciduous areas across southern Canada from Alberta eastward and south in the northern United States east of North Dakota to Michigan and New York, and in the Appalachians to Virginia. It winters in humid low vegetation in fields and borders in Central America from Nicaragua southward and in northern South America (Fig. 55), and occasionally in the Dominican Republic.

Although Hilty and Brown (1986:582) treat the species as uncommon in Colombia, there are over 60 individual records of the bird from there. These come from Magdalena, La Guajira, and Risaralda south in the valleys and on both sides of all three Andean ranges to Cauca, Huila, and Meta. Their dates range from 11 October to 21 April. The species is absent from the coastal plain up to about 150 m. It is most abundant between about 1,000 m and 2,000 m, and has been reported as high as 3,000 m.

In Venezuela the species has been found up to 3,300 m in the western part of the country from Aragua and Apure westward. Eight of the 18 localities from which the species has been recorded are in Zulia. Meyer de Schauensee and Phelps (1978:321) include in the range Sierra Parima, Amazonas, far to the southeast on the Brazilian border, but I can find no specific details; this may be a *lapsus*. There are very few data on the times the species is present. Meyer de Schauensee and Phelps (loc. cit.) give it as October to April.

Mourning Warblers have been found at five sites in Ecuador on the eastern slope and nearby lowlands, ranging from 3,100 to 300 m. All are January and February dates.

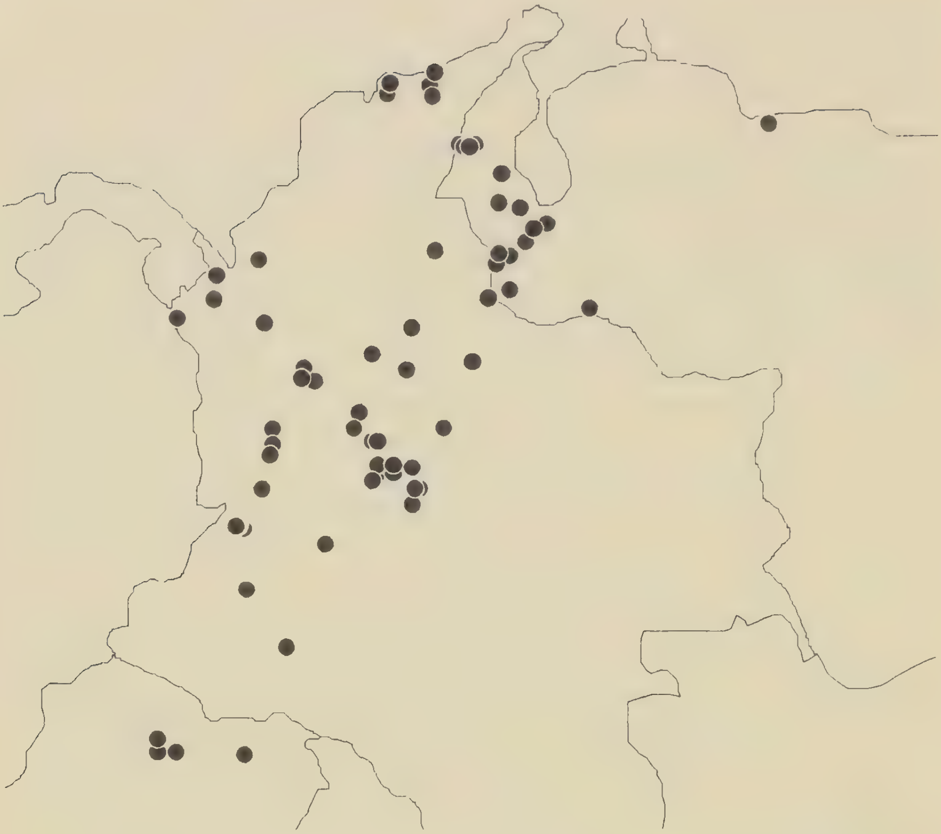

Fig. 55. Distribution of *Oporornis philadelphia.*

COMMON YELLOWTHROAT

Geothlypis trichas

The Common Yellowthroat breeds from Alaska to Newfoundland and south to the Isthmus of Tehuantepec. Its winter distribution extends from the southern part of its breeding range, and the Bahamas, through the Greater Antilles and Central America south to Panama.

The species straggles to South America (Fig. 56). It has been found in Colombia, from sea level to páramo at 4,600 m, once each in Chocó and Valle del Cauca, and several times in La Guajira. The Chocó record is notable because it is from 16 June. The other dates are in January, March, and April. There are no fall reports.

In Venezuela there is one record, presumably from the Andes of Mérida (Phelps and Phelps, 1963:328).

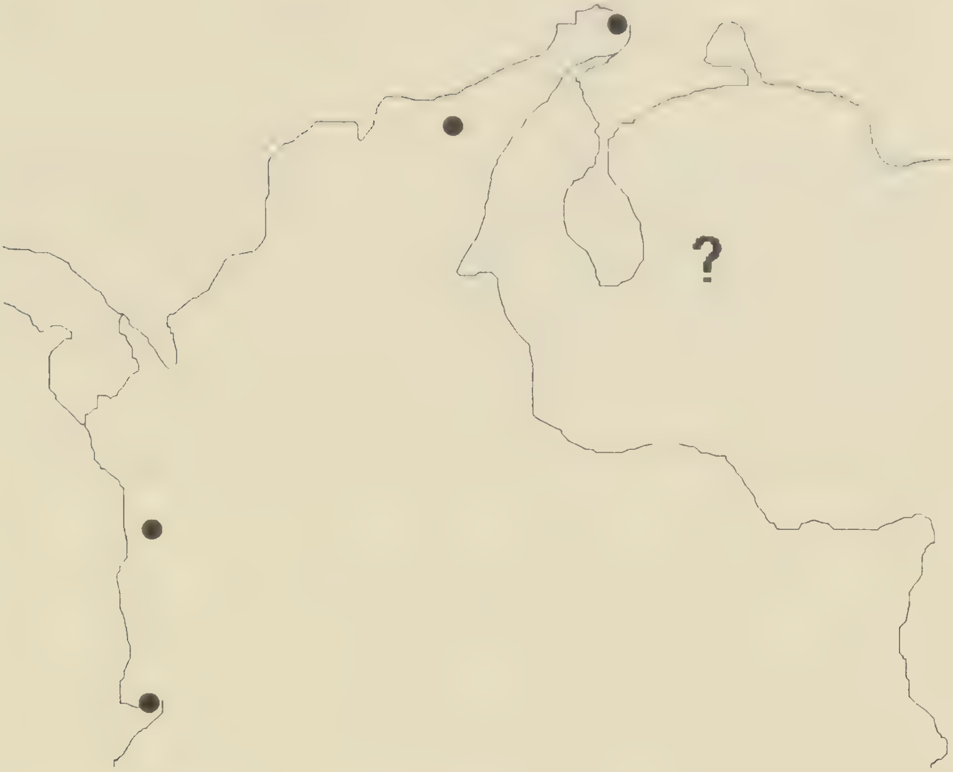

Fig. 56. Distribution of *Geothlypis trichas.*

HOODED WARBLER

Wilsonia citrina

The Hooded Warbler breeds over most of the eastern United States. It winters from Mexico through Central America, becoming rare in Panama and just reaches the northern extremity of South America (Fig. 57).

In Colombia it has been seen a half dozen times at Parque Nacional Tairona, Magdalena (Hilty and Brown, 1986:583; Phelps, 1973:35) in November, January, and February, and once in Serranía de Macuira, at the eastern tip of La Guajira, sometime between 15 June and 15 July (Andrade and Mejia, 1988:166). Presumably this was a bird that failed to migrate rather than an early arrival.

There are two records from the lowlands of northwestern Venezuela; one a November bird from Zulia (Phelps, 1973:35) and the other a late March specimen from Falcón (Bosque and Lentino, 1987:269).

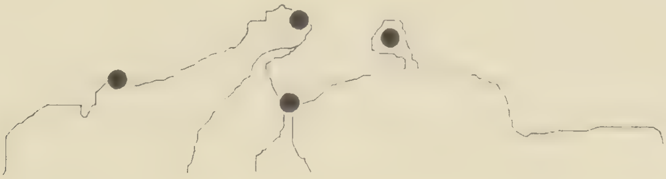

Fig. 57. Distribution of *Wilsonia citrina.*

WILSON'S WARBLER

Wilsonia pusilla

Wilson's Warbler breeds in wet areas from Alaska east to Newfoundland and south across most of Canada and the northern edge of the northeastern United States, and also south in the mountains to California and New Mexico. Its winter range is from the southern United States through Mexico to western Panama.

The only record of the species from South America (Fig. 58) is an observation made on 9 October 1990 at ca. 1,250 m on Cerro Tacarcuna, on the Panama/Colombia border (Pearman, 1993:73).

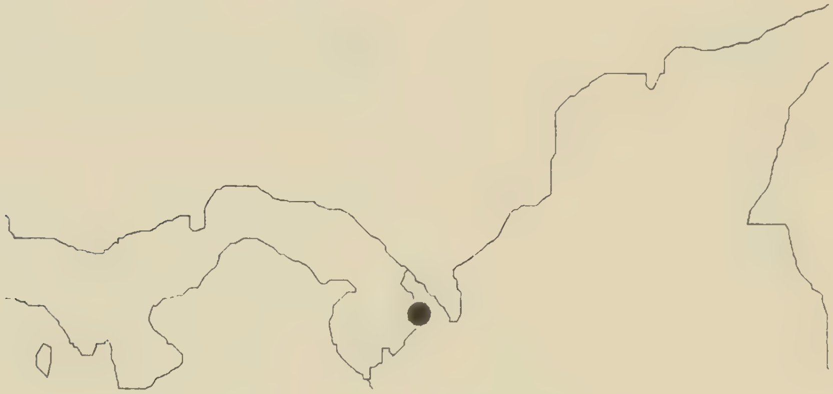

Fig. 58. Distribution of *Wilsonia pusilla.*

CANADA WARBLER

Wilsonia canadensis

This species breeds over much of central and southern Canada from Alberta eastward and in the northeastern United States, south in the Appalachians to Kentucky. It winters, almost exclusively, in South America (Fig. 59) and very casually north to Mexico. It is usually found in scrubby vegetation, but has occurred in primary forest.

It is abundant and widespread in Colombia, for the most part avoiding the coast as well as the eastern lowlands, and ranges through the mountains and interAndean valleys from about 500 to 3,150 m, but more usually between 1,000 and 2,500 m. Our records extend from 25 September to 5 May.

The species seems less abundant in Venezuela, having been reported from only ten sites of which seven are in the Andes, one in the coastal range, and two far to the the south in Amazonas. Meyer de Schauensee and Phelps (1978:322) give the altitudinal range as 800–2,100 m north of the Orinoco and

1,000–1,100 m south of that river, but our records are between 1,000 and 1,900 m in the north.

There is a single report of the species at an unnamed locality in Roraima, Brazil in April (Sick, 1993:561).

In Ecuador the species is abundant on the eastern slopes of the Andes and adjacent lowlands, from 300 to 1,750 m. It occurs from 9 August, an unusually early date, to 4 April (Chapman, 1926:596).

With the exception of an old record from Paucal, Cajamarca (Taczanowski, 1884:469), all specimens of Canada Warblers in Peru have been taken on the eastern slopes, from about 3,000 m downward, but most usually below 1,800 m. There is a report of the species being present in July (Berlepsch and Stolzmann, 1906:76), which suggests that it may have been a bird that failed to migrate. The remaining records are from 1 October to 28 March.

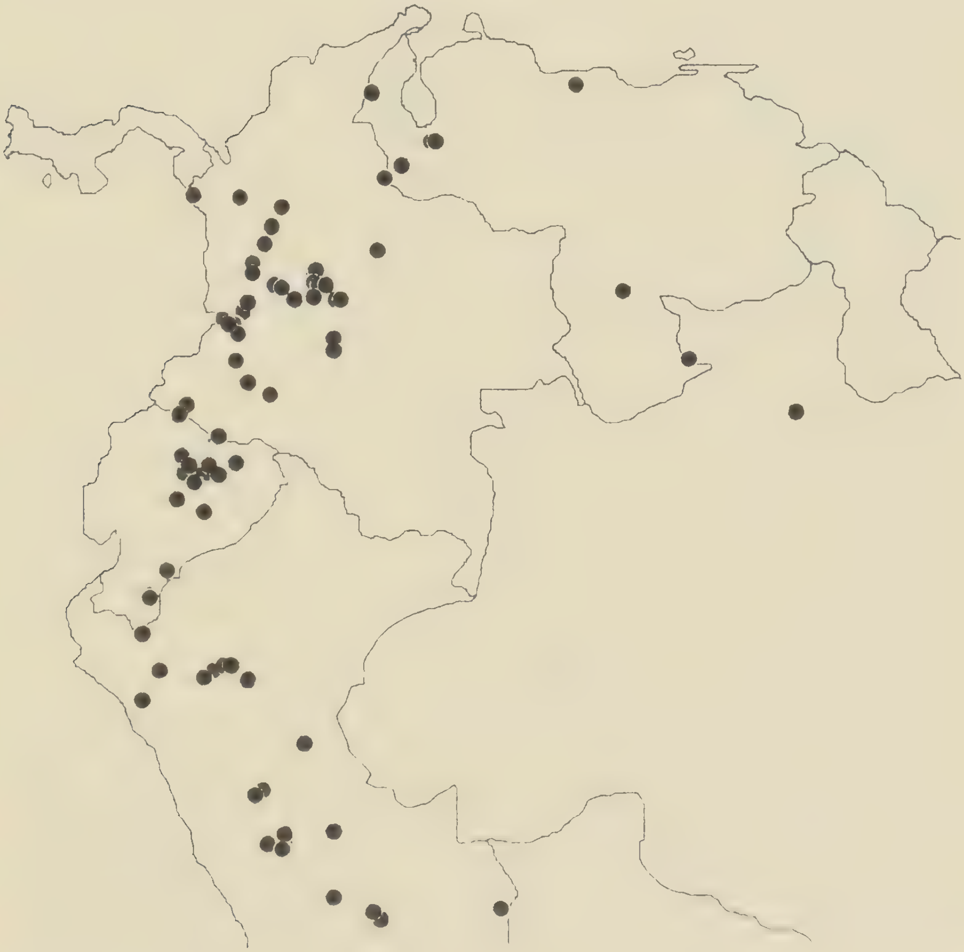

Fig. 59. Distribution of *Wilsonia canadensis*.

AMERICAN REDSTART

Setophaga ruticilla

The species breeds in a variety of mixed coniferous-deciduous habitats over most of Canada and the eastern, central, and northwestern United States. It winters from Mexico, southern Florida, and the West Indies through all of Central America and in light forest and second growth over much of northern and northwestern South America (Fig. 60).

It is widespread in Colombia, except in the lowlands of the southeast. It ranges from sea level to 2,600 m, although usually below 2,000 m. It has been found from 2 September to 5 May, and once sometime between 15 June and 15 July 1984 (Andrade and Meija, 1988:166). The latter must have been a bird that failed to migrate.

In Venezuela the species is widespread and sometimes abundant. It occurs from sea level to 4,000 m, although most reports are from 1,000 m and below. It has a long residency, having been seen as early as 31 August and as late as 30 May.

For the Guianas there are still only three published reports, one with no date from north-central Guyana (Snyder, 1966:247) and two from the mangroves of Suriname, near the Guyana border, collected in late January (Haverschmidt, 1968:374).

The species has long been known from Brazil on the basis of a few specimens from Roraima on the Guyana/Brazil border and from a single specimen from the Venezuela/Brazil border. Recently, Stotz, et al. (1992:618) have extended the known range to the Amazon in the vicinity of Manaus and also have identified a sixty-year-old specimen from northern Pará. The dates reported for Brazil range from 19 September to 21 April.

In Ecuador the American Redstart has been found on both slopes of the Andes, in the lowlands, and occasionally on the interAndean plateau, ranging from 3,100 m down to sea level. There are few records for the dates of occurrence but these range from 18 October to as late as an unknown day in June when two specimens were taken in Ibarra (Goodfellow, 1901:315). The June specimens may be of non-migrating birds.

In Peru the species has been found at four localities, three of which are on the Pacific coast and one in the interior on the Amazon slope. There are a number of reports extending over a 15 year period of single American Redstarts from near Mollendo, Arequipa, the farthest south the bird has been found (Hughes, 1988:41). The apparent regularity of this species there seems to be due to the observational skills of a local observer, R. A. Hughes, rather than to any natural phenomenon. The species has been recorded on 4 May, 22 and 24 June, July, 14–15 August, 21–22 October, 28 November, and 15 and 25 December. The June and July dates certainly must be from non-migratory birds, while the May and August dates might also be from similar birds. All these records are of female or immature birds.

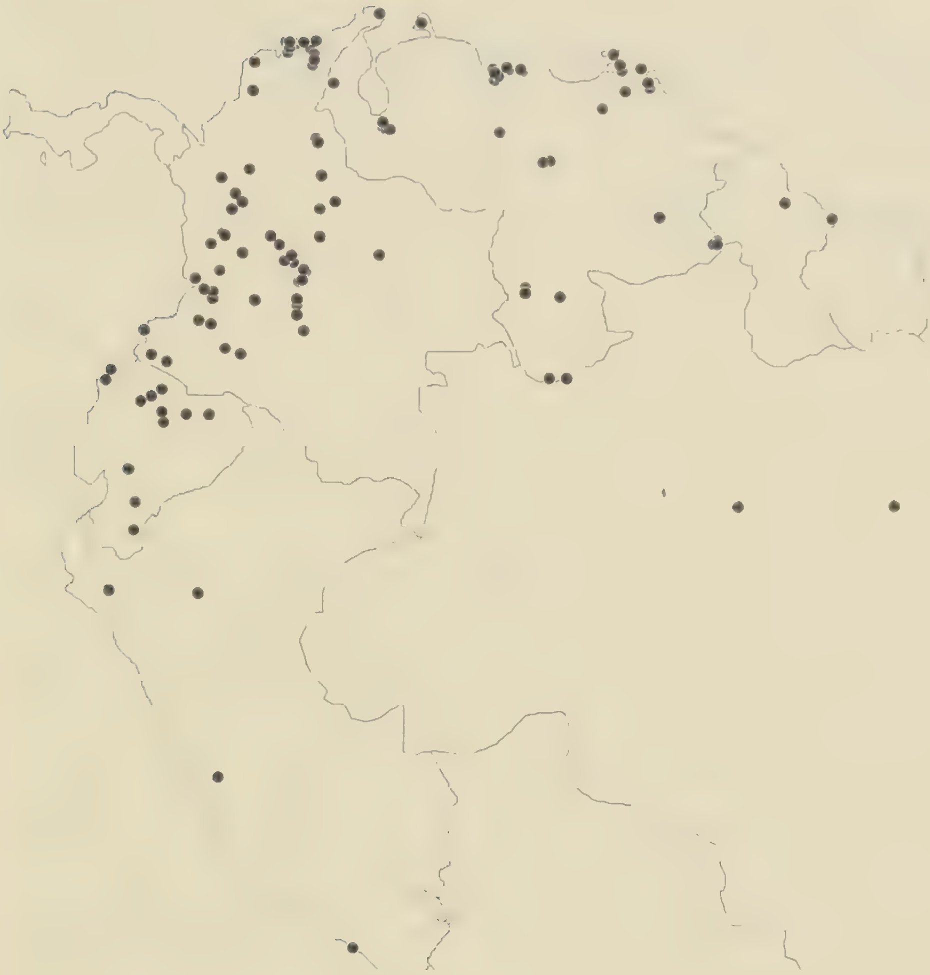

Fig. 60. Distribution of *Setophaga ruticilla*.

BOBOLINK

Doliochonyx oryzivorus

The Bobolink breeds from across southern Canada south to Washington, Nevada, Kansas, Ohio, and New Jersey. It migrates through the West Indies, the Caribbean islands, Costa Rica (rarely) and the northern tier of South American countries. It winters in open settings from Peru and Brazil southward (Fig. 61).

In Colombia the Bobolink is quite generally distributed throughout the country, up to 2,500 m, from mid-September to the end of November, and from early April to early May. Hilty and Brown (1986:574) offer slightly more extensive periods than the published records indicate, giving the fall arrival as early September and the spring migration from early March to mid-May.

There are not many reports, but during the fall migration the species seems to be found throughout Venezuela from sea level to 1,641 m. Published records show dates ranging from 14 October to 5 November. There are no specific reports from the spring, but Meyer de Schauensee and Phelps (1978:315) state that the Bobolink is both a fall and spring transient.

There are seven known records of the Bobolink at six sites in the Guianas, viz., two in Guyana, one in Suriname, and three in French Guiana. The only dates I have seen are late October and 5 April in French Guiana (Tostain, et al., 1992:173) and 23 April for a bird in Suriname (Haverschmidt, 1968:387).

In Ecuador there are two records from the eastern lowlands (Pinto, 1944:587; Pearson, 1972:12), only one of these with a date, viz., 31 October. Presumably the species does not winter in Ecuador.

Bobolinks seem to winter sparingly in the southern two-thirds of Peru, on the Pacific coast, in the Amazon Basin, and, very occasionally, in the mountains of the interior, up to 3,467 m, as, for example, at Acolla, Junín (Koepcke, 1961:24). There are 15 observations at 14 sites, with dates ranging from 11 November to 4 April. The December to March dates presumably are for winter residents; the November and April birds could be transients.

There are 17 published records from about 13 widely scattered localities in western and southern Brazil (Amazonas, Mato Grosso, Rio de Janeiro, Rondônia, and Rio Grande do Sul), ranging from 23 October to 9 April. Again it might be assumed that some of the early and late dates are of transients.

In Bolivia the species has been seen 23 times in 16 localities, ranging from the eastern lowlands to the mountains, up to 4,300 m. The dates extend from 14 October to 10 April.

Bobolinks have been observed four times in Chile, once in Tarapacá and thrice in Antofagasta, ranging from about sea level to 1,500 m. The only dates known are 3 and 5 December.

There are a half dozen reports from Paraguay; 30 November and 14 January are the known dates.

It is of interest that although the Bobolink is generally believed to be the North American species most characteristic of the Argentinean chaco region (Sick, 1984:32), and the bird is known to occur there in very large flocks (Canevari, et al., 1991:488), there are only six specified site records in Buenos Aires, Jujuy, Tucumán, and Santa Fe, and just four specific dates (November, December, January, and March) for the entire country. Olrog (1979:301) states that the species has been found in the provinces of Buenos Aires, Catamarca, Córdoba, and San Luis, while Ridgely and Tudor (1989:343) say the species occurs primarily in the pantanal of Corrientes, northeastern Santa Fe, and eastern Chaco. Narosky and Di Giacomo (1993:110) plot a few localities, although identifying only two, in extreme northeastern Buenos Aires.

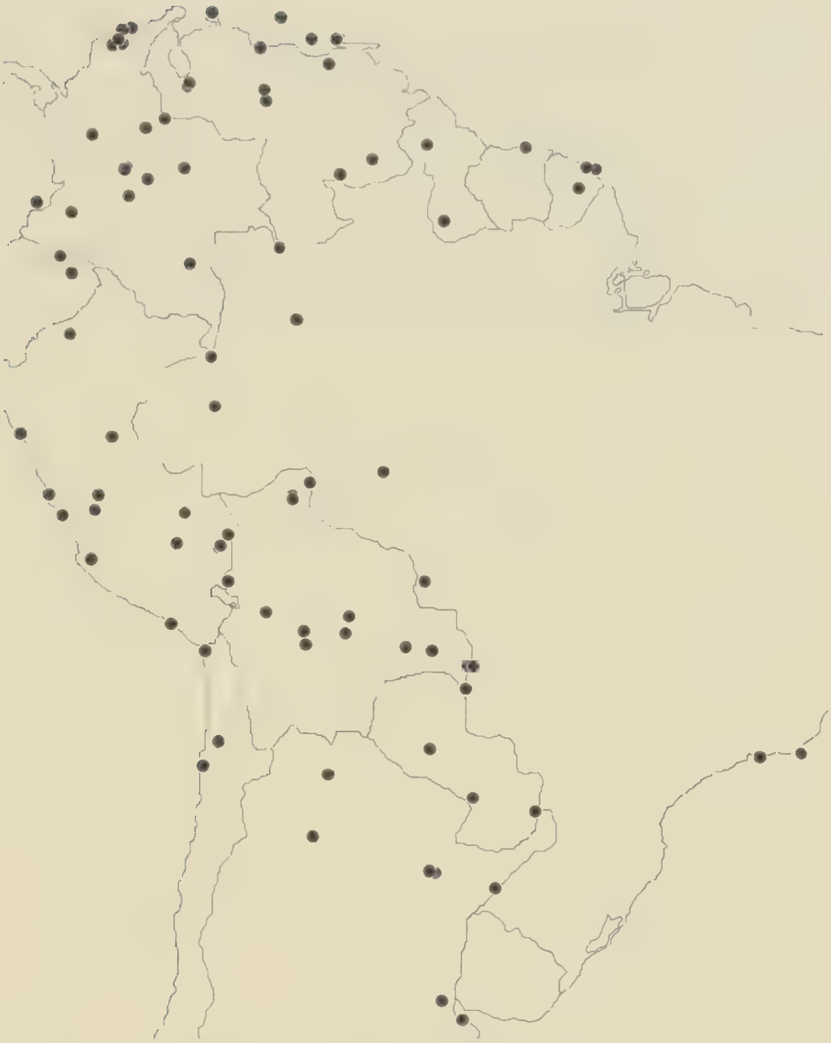

Fig. 61. Distribution of *Dolichonyx oryzivorus.*

ORCHARD ORIOLE

Icterus spurius

The species breeds from Saskatchewan east through southern Michigan to Massachusetts and south through the Great Plains, to the highlands of central Mexico, the Gulf coast, and Florida. It ranges in the winter from central Mexico through Central America to lightly forested areas in Colombia and northwesternmost Venezuela (Fig. 62).

At its southern limits the Orchard Oriole is uncommon, having been reported at only 18 different places in South America, of which 15 are in Colombia and three in western Venezuela. In the former country it has been found no higher than 500 m in the Caribbean lowlands, on the Pacific coast, and in the Cauca Valley, and on the eastern side of the Eastern Andes south, once, to Meta. Lehmann (1952:142) found Orchard Orioles on several occasions at about 1,000 m on the outskirts of Cali, Valle del Cauca, its southern limit. These records range from mid-October to early March, with one bird as early as 5 August (Dugand, 1947:638).

In Venezuela there are only three records. These are from the lowlands west of Lago Maracaibo, Zulia. Meyer de Schauensee and Phelps (1978:312) give it as a resident from September through March; I have no specific dates.

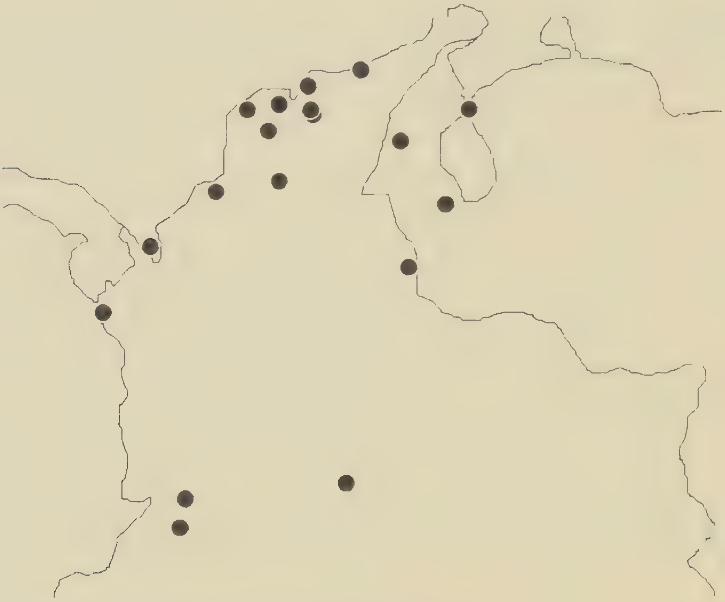

Fig. 62. Distribution of *Icterus spurius.*

NORTHERN (BALTIMORE) ORIOLE

Icterus galbula

This oriole breeds across the southern part of the southern tier of Canadian provinces and through the United States, except the southeastern portion, to northern Mexico. In the winter it occurs from central Mexico through Central America to northwestern South America, where it has been noted at 27 sites (Fig. 63) in areas of second growth and light forests.

In Colombia it is found in the wet lowlands in the north from Chocó east to western La Guajira, well below 500 m and sometimes in the same localities as *I. spurius,* and southward in the Cauca Valley to Depto. del Valle del Cauca

(Hilty and Brown, 1983:572). It has been found once in the llanos of western Meta (Nicéforo, 1947:367). Its occurrence is from 10 October to 3 May.

In Venezuela it has been recorded mainly west of Lago de Maracaibo, Zulia in the same general area as *I. spurius*, and once in the Distrito Federal, but Ridgely and Tudor (1989:361) extend the range east to Miranda. Meyer de Schauensee and Phelps (1978:313) give its dates from October to February; none of my records contain specific times.

There is one sight record, date unreported, from the province of Pichincha, Ecuador (Ridgely and Tudor, 1989:361).

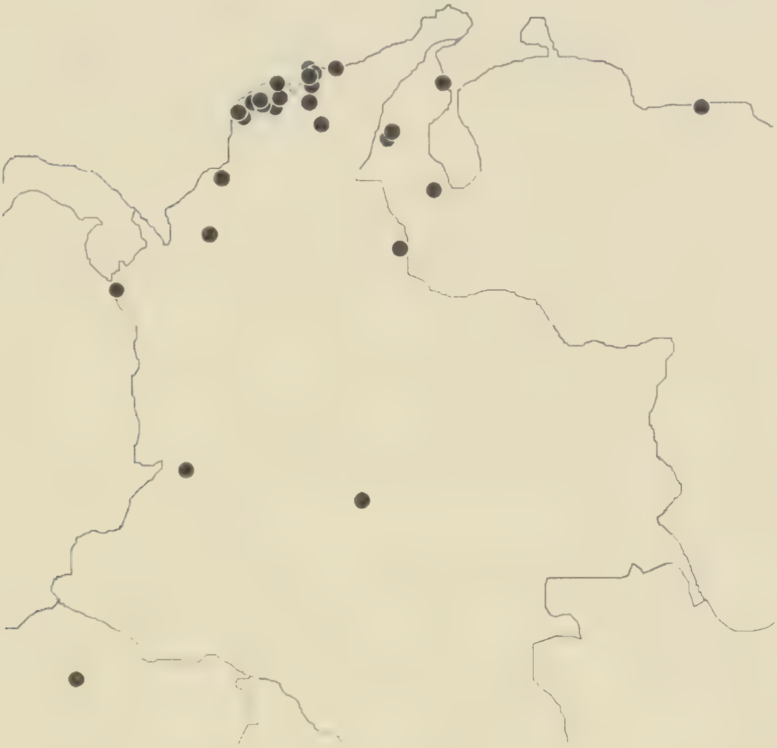

Fig. 63. Distribution of *Icterus galbula*.

ROSE-BREASTED GROSBEAK

Pheucticus ludovicianus

The Rose-breasted Grosbeak breeds across southern Canada and south to South Dakota, Kansas, and Georgia. In the winter it ranges from central Mexico through Central America to northern and northwestern South America (Fig. 64).

It is a fairly common bird on the border of forests and in second growth in northwestern South America, having been found at 68 sites on the continent. In

Colombia it occurs from close to sea level up to 3,500 m, but most often between 1,000–2,000 m. It has been found several times on the eastern llanos but more frequently on the slopes of all three Andean ranges except the southeast portion of the Eastern Andes. This absence may be because of the paucity of observations in the region. It is present from 1 October to an unspecified date in April.

In Venezuela the species occurs in the northwestern part of the country in Zulia and Táchira, east to the Distrito Federal and Miranda, and from about 450 to 1,800 m. There is a report of the species far to the south on Cerro Duida, Amazonas (Phelps & Phelps, 1963:399). The few dates of occurrence range from 17 October to 15 April.

There are single records, without details, from French Guiana (Tostain, et. al., 1992:183) and Guyana (Ridgely and Tudor, 1989:395).

Rose-breasted Grosbeaks have been found in northern Ecuador in the provinces of Esmeraldas, Imbabura, Pichincha, and Napo, ranging from close to sea level to about 2,450 m. Most records lack dates; those available are from 10 October to 31 January.

There is a single report, without details, of the species far to the south in Junín, Peru (Brack Egg, 1972:64), a late November sight record from even farther south in Cuzco (Willard, in litt.), and one on 15 November from Pasco (Field Mus. Nat. Hist.).

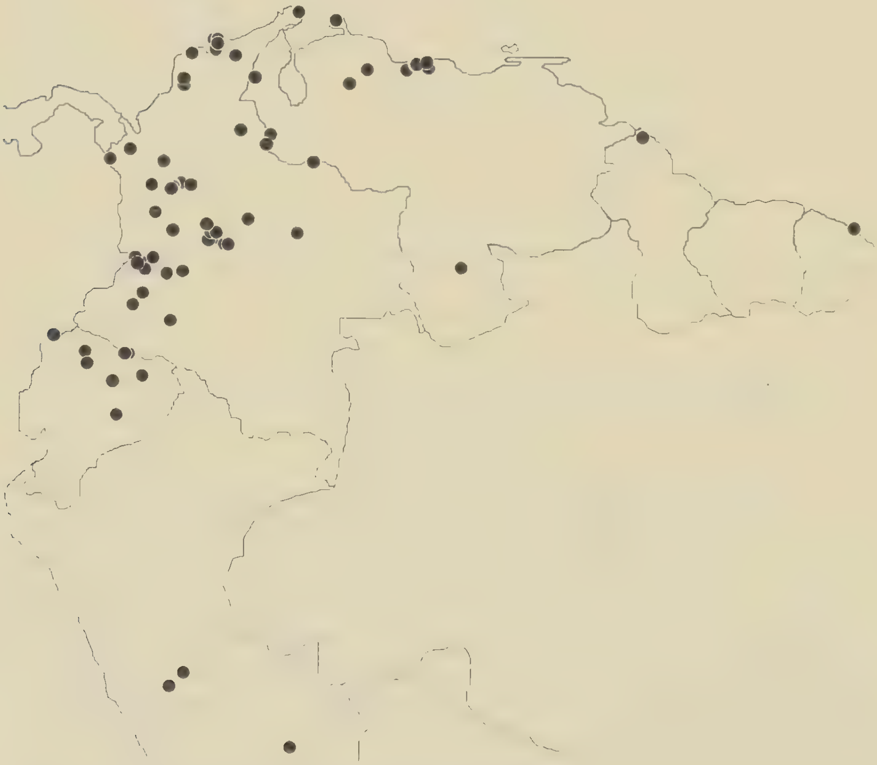

Fig. 64. Distribution of *Pheucticus ludovicianus*.

BLUE GROSBEAK

Guiraca caerulea

The Blue Grosbeak breeds across the southern two-thirds of the United States and southward in Middle America, mainly in the highlands and on the Pacific slope, to Costa Rica. In the winter it withdraws from its northern breeding range and is distributed from Mexico south to Panama.

Its occurrence in South America appears accidental (Fig. 65). In Colombia it was seen once in April in the lowlands east of Buenaventura, Valle del Cauca (Gochfeld, et al., 1974:958) and collected, also in April, in the Eastern Andes at Hiroca (ca. 1,200 m), Cesar (Hilty and Brown, 1983:17). There is one December record from the Amazon Basin in the province of Napo, Ecuador (Ridgely, 1980:248).

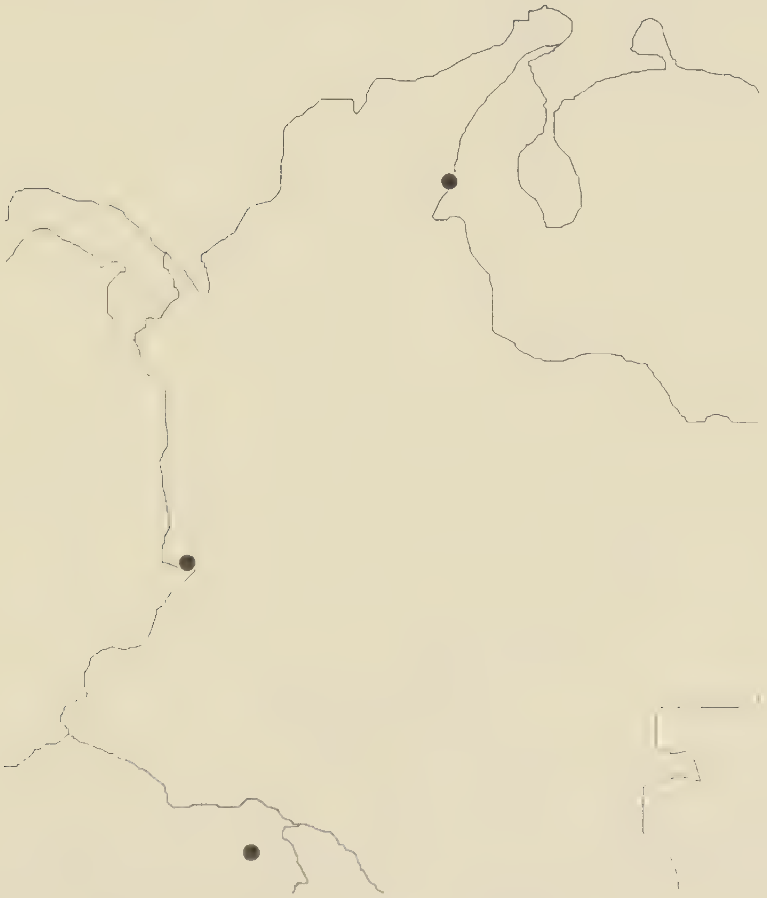

Fig. 65. Distribution of *Guiraca caerulea*.

INDIGO BUNTING

Passerina cyanea

The species breeds from the southern edge of the eastern half of Canada south through the eastern two-thirds of the United States, to the Gulf of Mexico. In the winter it occurs from the southern border of the United States, the Bahamas, and the Greater Antilles through Mexico and Central America, occasionally reaching Trinidad, the Netherlands Antilles, and northern South America (Fig. 66).

Indigo Buntings have been found only at eight localities on continental South America. Five of these are single records from Colombia (Meyer de Schauensee, 1959:73–74; Haffer, 1975:169; Hilty and Brown, 1986:642), all from the coastal lowlands of Chocó and Magdalena. These extend from January to 9 May. The lack of reports from the closing months of the year may be because of the meager data, rather than of significance.

There are three records from Venezuela, all in the Sierra de Perijá on the Colombian border (Aveledo and Pons, 1952a:22). The altitude is uncertain but seems to be around 1,000–1,200 m in the subtropical zone. December is the only date that has been published.

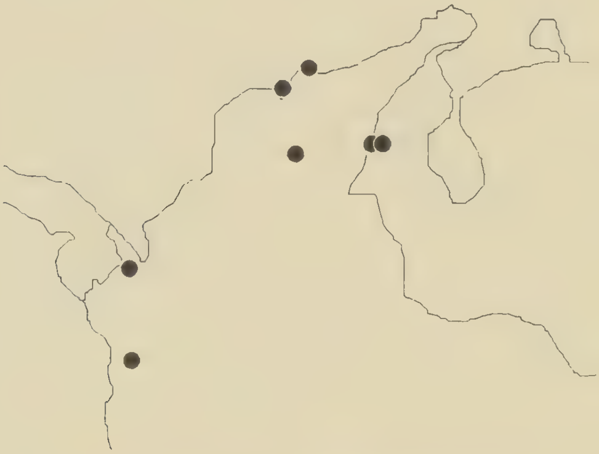

Fig. 66. Distribution of *Passerina cyanea.*

DICKCISSEL

Spiza americana

The Dickcissel breeds in the Great Plains, and irregularly and locally east to Massachusetts and New York, and south to Texas and Louisiana. It winters primarily on the Pacific slope from central Mexico through Central America and in northern South America (Fig. 67).

In South America there are about 50 specific records, usually of more than a single bird and sometimes of millions (Thomas, 1994:533), in fields and other open areas from 37 localities in South America. It is a fairly abundant species in the Caribbean lowlands of Colombia, extending up to the middle of the Magdalena Valley and east of the Eastern Andes south to Meta. In Venezuela it is confined to the llanos, ranging from Aragua and Guárico east to Monagas and south to northern Bolívar. Fretwell (1980:524) describes the species as spending November and December in eastern and central Venezuela and shifting to western Venezuela and northward from late December onward. Such movement is not evident in our sparse records. There is a single record (July 1906) from Guyana (Chubb, 1921:458) and also one (March) from the territory of Roraima, Brazil (Sick, 1985:716).

It has been recorded from every month except June and August, with most reports from December through April. Presumably a few birds remain during the boreal breeding season.

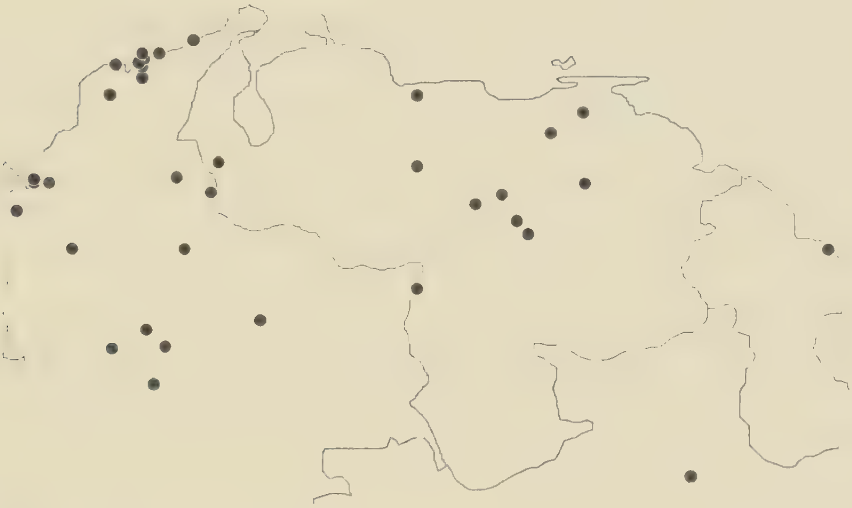

Fig. 67. Distribution of *Spiza americana.*

SCARLET TANAGER

Piranga olivacea

This tanager breeds in the central and northern portions of the eastern United States and adjacent areas of southern Canada. It migrates through the Caribbean lowlands and the West Indies to winter from eastern Panama (rarely) through northern and western South America (Fig. 68). Its preferred winter habitat is forest edges and high second growth.

This common bird of North America is seemingly uncommon in its winter quarters, with published observations at only about 44 localities on the continent. Twenty of these are in Colombia, where the bird is found in the western, northern, and eastern lowlands as well as on the Andean ranges. Hilty and Brown (1986:626) consider the species to be an uncommon transient and winter resident. Its altitudinal range is from near sea level to 3,000 m, although the majority of records fall about midway between these extremes. Our dates of occurrence range from 12 October to 20 April, with most records in March and April. Serna (1980:96) reported one bird in Antioquia on 12 July. Although the data are fragmentary, they suggest that perhaps the species is more often observed in the spring after the males have molted into their brilliant breeding plumage.

There are two late October records from Islas Las Roques (Phelps, 1973:39) and Aragua (Lentino, et al., 1984:116), northern Venezuela, and records for 3 February and 10 June from Georgetown, Guyana (Howe and Singh, 1960:96). Obviously, the eastern part of northern South America is neither a significant migration route nor wintering area.

The species has been seen at four places in the Amazonian lowlands of eastern Ecuador and once on the interAndean plateau. The number of observations made is unreported; the species is known to be present from 1 November until April (Western Found. Vert. Zool.; Pearson, 1972:13).

Scarlet Tanagers have been seen at seven localities in Peru; once from La Libertad at about 1,000 m, on the Pacific slope (Koepcke, 1961:22) and the balance from the eastern slopes and lowlands. The only recorded date is 15 December.

The species apparently reaches its southern limit in the lowlands of northern Bolivia in the departments of La Paz and El Beni, from which there are only a few observations at three sites. The dates range from 14 October to 30 November and the altitudes from 176 m to possibly as high as 1,300 m, but with so few data not much can be concluded.

Ridgely and Tudor (1989:308) postulated that the species may winter in westernmost Brazil, where it has been overlooked. Support for this is found in the three recent observations of Scarlet Tanagers at Manaus in Amazonian Brazil in December 1984 and 1987 (Stotz, et al., 1992:618). Manaus has, in the past twenty years, become a center for ornithological research in the Amazonian Basin. These new records may be the result of increased scrutiny given birds in that region.

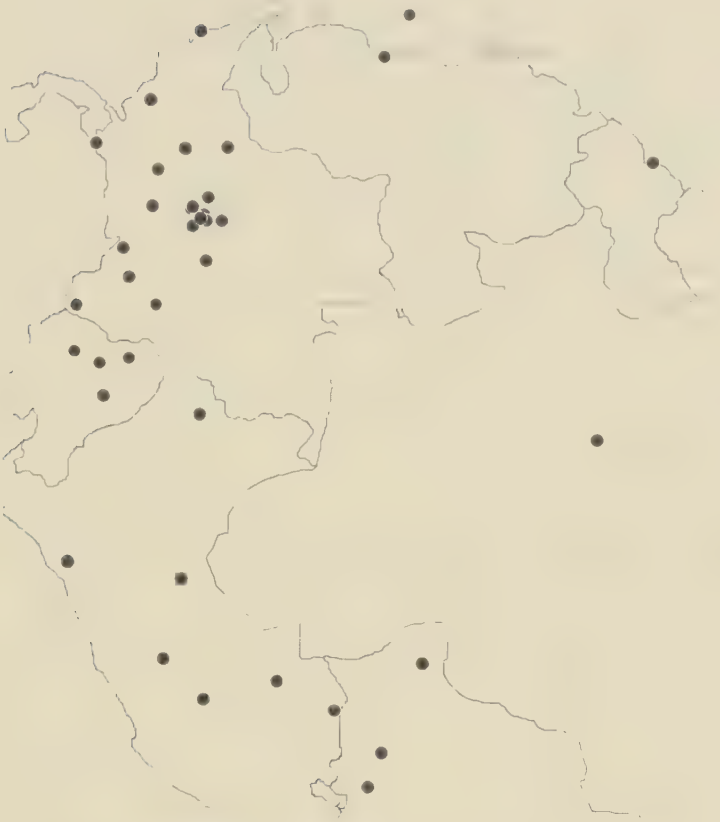

Fig. 68. Distribution of *Piranga olivacea.*

SUMMER TANAGER

Piranga rubra

The Summer Tanager breeds from New Jersey west through southwestern Pennsylvania, central Illinois, Kansas, central Texas, and central New Mexico, to southeastern California and southward in the northern tier of Mexico states. On migration it occurs in the northern West Indies east to Jamaica and on islands in the western Caribbean.

It winters from central Mexico through Central America and Trinidad to northern and central western South America (Fig. 69), where it occurs in light forests, edges, and tall second growth. It is one of the most commonly recorded North American winterers, having been found at nearly 200 localities on the continent.

It appears to be most abundant in Colombia where it occurs in the western half of that country, ranging from the coastal lowlands to as high as 3,500 m, but most commonly in the mountains from about 500 to 2,500 m. There are a few records from the eastern lowlands, but it is unknown whether the sparsity of records is because the bird is uncommon or because there have been few collections from there. As the species has rarely been taken in the Amazon Basin, the former is probably the correct explanation. In general, records indicate Summer Tanagers arrive in early October and leave by mid-April. Wallace (1958:82) thought he saw the species at Popayán, Cauca on 14 and 22 May, but he himself suggested that he may have misidentified examples of *P. flava,* the Hepatic Tanager, a resident species. There is one record from San Gil, Santander, for 12 June (Nicéforo, 1945:394), one for Medellín, Antioquia for 8 July (Serna, 1980:96), as well as one for Popayán for 17 September (Wallace, 1958:181). The former two may represent birds that spent the northern summer in Colombia while the later record probably represents an early arrival, although there remains the possibility that the specimens are misidentified examples of *P. flava.*

There are records of Summer Tanagers at 23 sites in Venezuela, mainly in the Andes from Miranda to Táchira from about 550–2,000 m, but with several from Guárico and the western lowlands of Amazonas, as well as from the tepuis of Bolívar and Amazonas, ranging from 100 to 1,800 m. Meyer de Schauensee and Phelps (1978:344) place it in the country from September to May; my records are from 10 October to 9 February.

There are six recent reports, all in November and December, from French Guiana (Tostain, et al., 1922:179) but none prior to 1986. The recency of these reports is doubtless a reflection of the new interest in French Guiana ornithology rather than any change in the habits of the birds.

In Guyana it is apparently uncommon, but this may be because of the paucity of observers, having been recorded on the coast once (date?) at Koriabo (Snyder, 1966:259) and twice at Georgetown, on 22 December and 16 May (Howe and Singh, 1960:96), and inland on the Kanuku mountains, early February (Parker, et al., 1993:59), and probably one time each, with unknown dates, on Mount Roraima (Pinto, 1944:503) and in the Pakaraima mountains (Snyder, loc. cit.).

There is a single record of the Summer Tanager at Paramaibo, Suriname on 11 March (Davis, 1979:145).

The species has been seen on both slopes of the Andes of Ecuador, up to about 2,800 m, on the coastal plain, and in the Amazon Basin. Its dates of occurrence are from October through the first week in April. There is a single record of a female as early as 3 September (Lönnberg and Rendahl, 1922:85).

In Peru the species is found, apparently uncommonly, only on the eastern side of the Andes, from about 3,000 m down into the Amazonian lowlands. The dozen or so records range from 5 October to only 6 February; a large sample would presumably extend the period.

The species has been found in October and November from localities in Bolivia, ranging from 176 to 2,557 m.

There is a unique record (12 March 1968) from the Pacific slope of Chile at Portezuelo, Antofagasta (Prescott, 1974:617).

In Brazil the bird seems to be uncommon, there having been 12 scattered reports from the western half of the Amazon Basin east to Pará and south to Rondônia. Only three of these reports are earlier than 1984. Six of the post-1984 records are from the vicinity of Manaus. An increase in observers there probably accounts for so many recent observations. The records range from 22 November to 10 March.

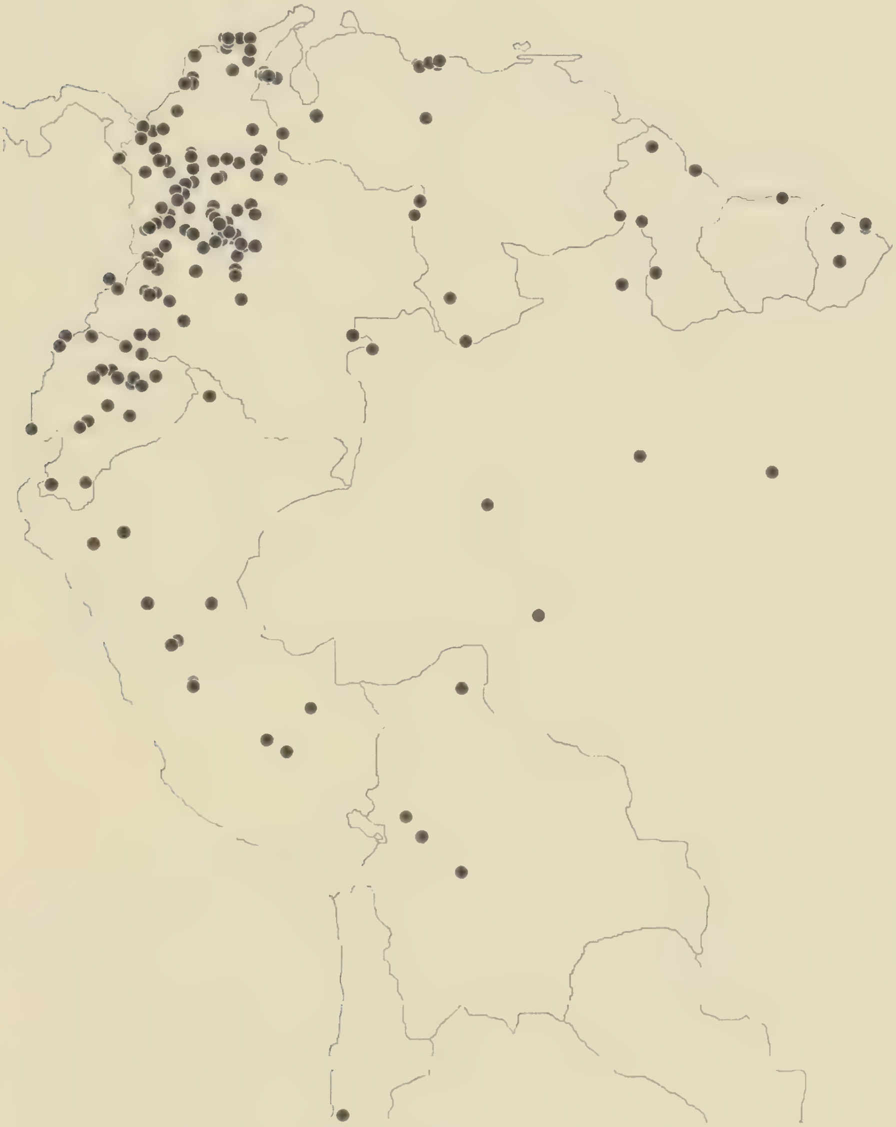

Fig. 69. Distribution of *Piranga rubra*.

DISTRIBUTION ON THE CONTINENT

As is evident from the above accounts, Nearctic Passerine migrants winter mainly in the vicinity of the Andes in the northwestern part of the continent (Fig. 1). They also range, in reduced numbers, northeast and south along the Andes to Venezuela and Bolivia, respectively. Passerine migrants also occur, but in even lower numbers, in the Guianas and on the margins of the Amazon Basin. They are rare elsewhere and apparently almost absent from central and eastern Brazil and southern Chile and Argentina.

All 13 of the South American countries have some representatives of the 68 Nearctic Passerine taxa, with the number of representatives generally decreasing from north to south (Fig. 70). These records range from 66 taxa in Colombia and 54 in Venezuela to only six, five, and four forms in Chile, Paraguay, and Uruguay, respectively. Some of these numbers may, of course, be influenced by the intensity of past ornithological research in a given country, and possibly by the size of the country. With further study the number of taxa recorded for each will doubtless increase, but the relative rankings will probably remain about the same.

An intriguing question is whether the decrease in migrant taxa from north to south reflects their historic origins, or whether it is a function of distance from the northern breeding grounds, or whether it is the result of progressively increasing competition from residents whose own breeding seasons are roughly positively correlated with their distance below the equator and thus are at their peak when the migrants are on the continent. Unfortunately, this study provides no answer. It is unlikely that there will be a single explanation for all taxa.

Restricted Distribution

Bank and Barn swallows (*Riparia riparia* and *Hirundo rustica*), and the Blackpoll Warbler (*Dendroica striata*), have been seen in all the countries. On the other hand , 12 species have been found only in a single country each (ten in Colombia, two in Venezuela): Violet-green Swallow (*Tachycineta thalassina*), Gray Catbird (*Dumetella carolinensis*), Wood Thrush (*Hylocichla mustelina*), Philadelphia Vireo (*Vireo philadelphicus*), Worm-eating Warbler (*Helmitheros vermivorus*), Blue-winged Warbler (*Vermivora pinus*), Northern Parula (*Parula americana*), Yellow-throated Warbler (*Dendroica dominica*), Prairie Warbler (*D. discolor*), Townsend's Warbler (*D. townsendi*), Palm Warbler (*D. palmarum*), and Wilson's Warbler (*Wilsonia pusilla*). Published

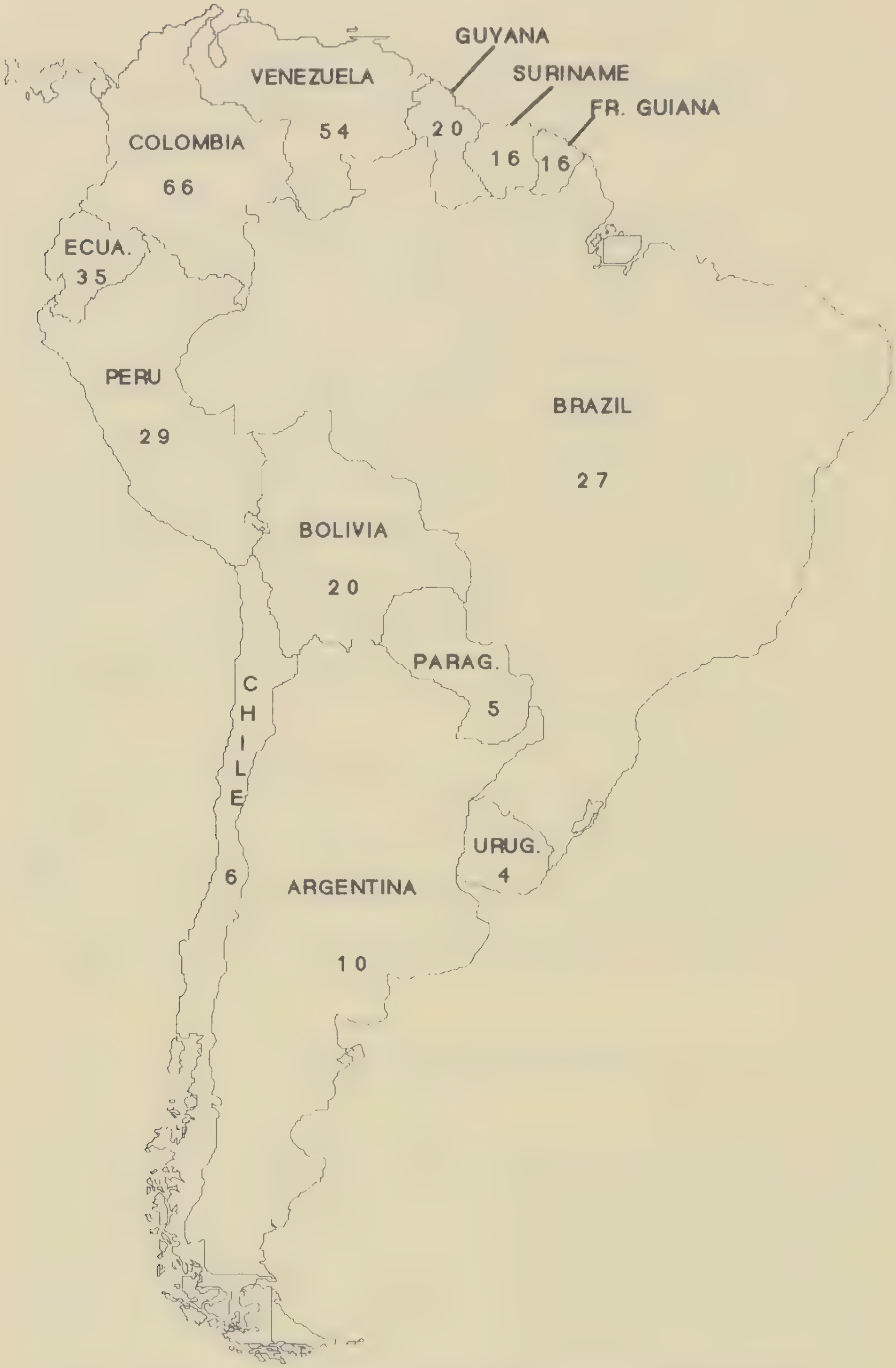

Fig. 70. Number of Nearctic Passerine taxa recorded from each country.

records of eight of these species are based on single observations. The remaining four species were observed two to six times, at two to four localities. In no instance was a species that was confined to a single country found at more than four sites or observed more than six times. In other words, no taxon restricted to a single country occurred in even moderate numbers, or, conversely, Passerine migrants with small populations on the continent are not widely distributed there.

Sixteen taxa were found in two countries only (15 in Colombia/Venezuela; one in Colombia/Ecuador), but the relationship between a restricted range and depauperate numbers shown in the single-country taxa begins to fail. Ten of these taxa were found at five or fewer localities: Cedar Waxwing (*Bombycilla cedrorum*), Magnolia Warbler (*Dendroica magnolia*), Black-throated Blue Warbler (*D. caerulescens*), Yellow-rumped Warbler (*D. coronata*), Black-throated Green Warbler (*D. virens*), Cape May Wabler (*D. tigrina*), Ovenbird (*Seiurus aurocapillus*), Common Yellowthroat (*Geothlypis trichas*), Hooded Warbler (*Wilsonia citrina*), and Blue Grosbeak (*Guiraca caerulea*). Six taxa occurred at eight to 34 localities: Great Crested Flycatcher (*Myiarchus crinitus*), Yellow-throated Vireo (*Vireo flavifrons*), Louisiana Waterthrush (*Seiurus motacilla*), Kentucky Warbler (*Oporornis formosus*), Orchard Oriole (*Icterus spurius*), and Indigo Bunting (*Passerina cyanea*).

The latter six species generally winter from the southern United States or Mexico southward and their presence in South America, although limited to two countries, is relatively strong. Not surprisingly, the 12 taxa confined to a single country and the ten taxa found at only five or fewer localities in two countries, while occurring northward in the winter to about the same limits as as the six previous species, are all at the southern edges of their winter ranges when in South America. Some may occur regularly in small numbers and others may be occasional visitors; until more research has been done, or more observations published, it is impossible to know which. But, the important point is that these 22 forms, totalling about one-third of the Nearctic Passerine taxa in South America, are so poorly represented that they apparently have an insignificant place in the avifauna of the continent.

A second point to be made, and one that is less certain although it may have wide implications, is that the southern limit of each of the 26 taxa known from one or two countries seems to be reasonably circumscribed and not attenuated. It appears that a given population does not diffuse in an ever-thinning density the farther it is from the core of its winter quarters. For example, Great Crested Flycatcher has been found in abundance at 34 places in Colombia and western Venezuela, but it does not extend in decreasing frequency to adjacent Ecuador, northern Peru, and eastern Venezuela. Or, in the case of birds known from only one or a few localities in South America, these are not distant outliers but rather are not far from their confreres in southern Central America or the Lesser Antilles. Whether this holds true for taxa wintering more commonly in South America is not certain. Many seem to thin out on their southern fringes, which may be indicative of diffusion or merely be the result of fewer observation points than in the northwestern part of the continent.

Potential Visitants

Species whose winter ranges terminate in southern Central America but which may be expected to turn up some day in Colombia or Venezuela, similar to the 22 species discussed above, are Yellow-bellied Flycatcher (*Empidonax flaviventris*), Least Flycatcher (*E. minimus*), Western Kingbird (*Tyrannus verticalis*), Scissor-tailed Flycatcher (*T. forficatus*), MacGillivray's Warbler (*Oporornis tolmiei*), Painted Bunting (*Passerina ciris*), and possibly White-eyed Vireo (*Vireo griseus*), Solitary Vireo (*V. solitarius*), and Lincoln's Sparrow (*Melospiza lincolnii*).

Wider Distribution

In contrast to the 22 forms with barely a foothold on the continent are the seven taxa that winter exclusively in continental South America: Sulphur-bellied Flycatcher (*Myiodynastes luteiventris*), Western Wood-Pewee (*Contopus sordidulus*), Purple Martin (*Progne subis*), Red-eyed Vireo (*Vireo o. olivaceus*), Yellow-green Vireo (*V. o. flavoviridis*), Connecticut Warbler (*Oporornis agilis*), and Bobolink (*Dolichonyx oryzivorus*). Three more are found on the continent and in Panama or Trinidad as well: Veery (*Catharus fuscescens*), Bay-breasted Warbler (*Dendroica castanea*), and Blackpoll Warbler (*Dendroica striata*). These have been recorded from between 21 and 122 localities in South America (Table 2). Most have wide, and varied, winter distributions that do not differ from the South American distribution of birds whose winter ranges also extend farther north (Fig. 71). The Blackpoll Warbler is the widest ranging of this group, having been reported from all 13 countries.

The remaining 30 species occur in from three to 13 countries and have been reported from six to 202 times. No common pattern of distribution, time of residency, etc., can be discerned, although included in this group are Bank, Barn, and Cliff Swallows (*Riparia riparia, Hirundo rustica,* and *Petrochelidon pyrrhonota*), the only migrant Passerines to occur in southernmost Chile and Argentina.

Regional Variations

Although a tally (Fig. 70) of the number of migratory taxa in each country gives an overall picture, the relative importance of the migrants may vary widely. For example, 29 forms have been found in Peru and 27 in Brazil. Superficially it would seem migrants are roughly of equal importance in the two countries, but on closer examination the following appears.

Twenty-seven taxa, or about forty percent of all Nearctic migrant Passerines in South America, occur in Brazil. Nevertheless, an examination of the map on which are plotted all the localities at which Passerine migrants have been reported (Fig. 1) shows a paucity of records from that large country, particularly in the east. This is not an artifact reflecting the absence of observers. The map of *all* observation sites that accompanies the *Ornithological Gazetteer of Brazil* (Paynter and Traylor, 1991) shows that there are approximately 6,000 sites fairly well scattered over the country. The 6,000 locations in Brazil represent nearly one-third of the total for the entire continent. It is, therefore, a sizable sample. A count of the Brazilian localities at which Passerine migrants have been found gives a total of only about 120 sites, which is approximately two percent of all Brazilian localities. Brazil, even the vast Amazon Basin, is therefore a comparatively infrequent destination for Nearctic migrants. (The only possible exception is the Connecticut Warbler, which winters almost exclusively on the edges of the Amazon Basin in Brazil, Peru, and Colombia).

In contrast, the 29 Nearctic migrants found in Peru have a larger role there than do the 27 taxa recorded from Brazil. Here there are about 2,100 observation sites (see map in *Ornithological Gazetteer of Peru,* Stephens and Traylor, 1983) in an area about one-seventh the size of Brazil. Nearctic migrants have been reported at 83 (4%) of these localities. Simply on the basis of the percentage of site records it would appear migrants are twice as likely to occur in Peru as in Brazil. If we were able to quantify these records and factor in differences in area size, habitat, etc., there is no doubt that the discrepancy between the two countries would be vastly increased.

Seasonal Variations

In the northern part of the continent, principally in Colombia and Venezuela, there are seasonal influxes of migrants as they cross to and from their more southern quarters. For example, in Colombia the number of reports of the Eastern Kingbird (*Tyrannus tyrannus*) are greatest in October and April, those of the Eastern Wood-Pewee (*Contopus virens*) in October and March, and those of the Olive-sided Flycatcher (*C. borealis*) in the fall until mid-November and in the spring after February. Although the samples are small and imprecise, it is

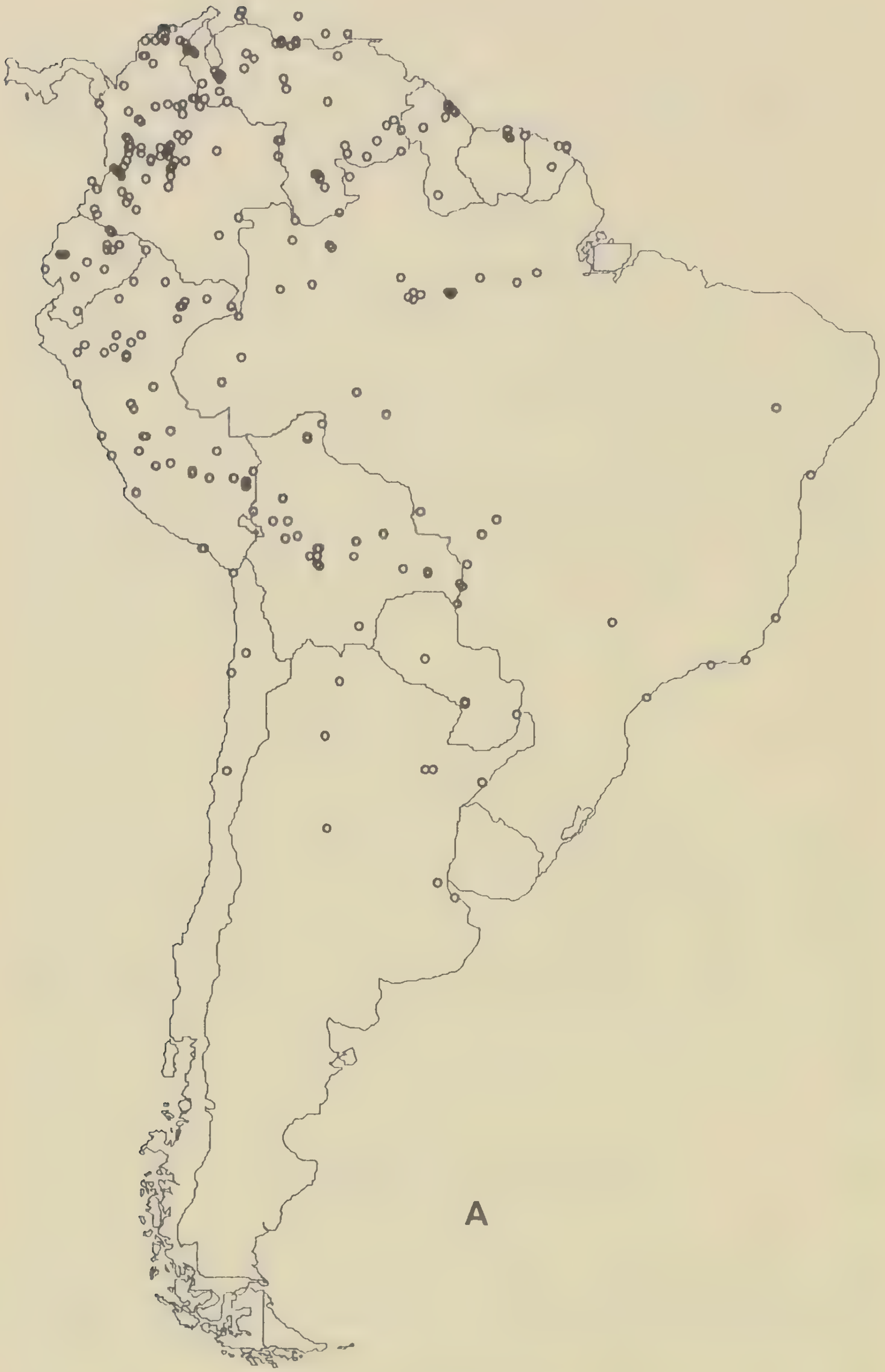

Fig. 71. Distribution of migrants wintering exclusively in South America [A] and those also wintering farther north [B].

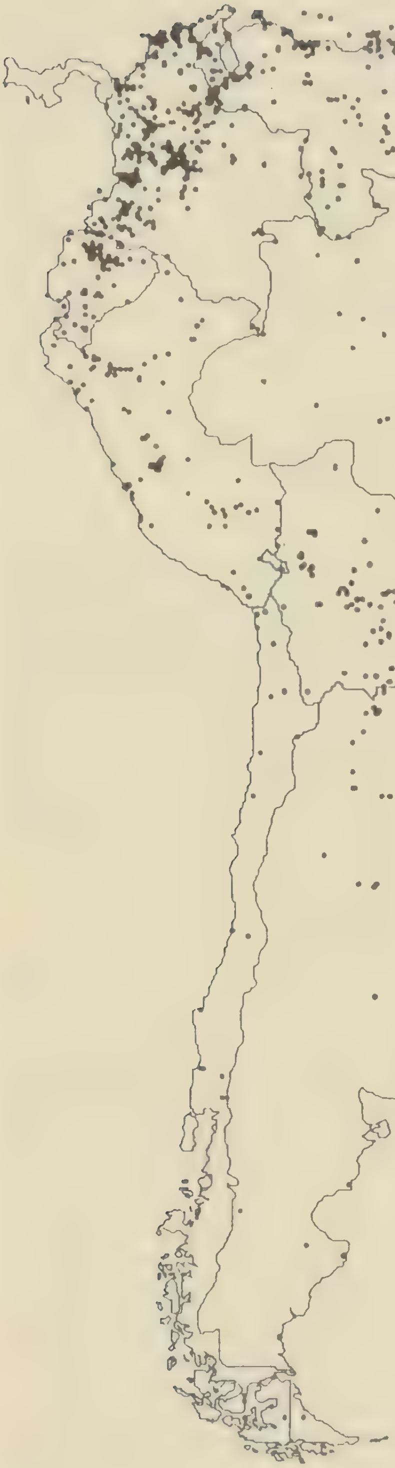

Fig. 71. (Continued)

assumed these reporting peaks are indicative of transients augmenting the local populations in the fall and spring. In a few instances there are taxa that are only transients in these northern countries, as in Colombia where 66 taxa have been reported, but about six or seven (Sulphur-bellied Flycatcher, Bank Swallow, Cliff Swallow, Yellow-green Vireo, Black-whiskered Vireo, Connecticut Warbler, and Bobolink) are forms that do not seem to winter there. The data are less complete for Venezuela; it appears that about five species are solely transients, out of a total of 54 migrants.

Russell (1980:250), in a study of a plot of thornscrub in northern Colombia, noted that northern migrants that were present in October, when the vegetation was at its peak greenness, had all but disappeared by mid-December when the vegetation was leafless. Russell characterized the northern birds as transients while Morse (1989:219) considered them to be visitants that shifted with the change in the condition of the vegetation.

Johnson (1980:245) found an increase in the number of migrants in March-April at his study area in the subtropical lower montane wet forest in northern Colombia. He attributed this increase to an upward shift of migrants from lower altitudes as the dry season progressed, similar to the shift that had been noted for resident species. However, Johnson has also pointed out that rather than an altitudinal shift, the change in the numbers might be the result of migrants taking a different route in the spring than in the fall.

In another study in a small patch of lower montane wet forest in Antioquia, Colombia, Johnels and Cuadros (1986:240) noted that the Black-and-white Warbler (*Mniotilta varia*) and Tennessee Warbler (*Vermivora peregrina*) were present from late September to November and then not seen again until the following year. On the other hand, the Blackburnian Warbler (*Dendroica fusca*) remained from September to March. No mention was made of seasonal changes in vegetation or food at the site. It seems the latter two warblers were transients.

Trapping and marking the migrants would probably determine whether the populations present only for short periods are made up of some individuals stopping for several weeks or many more birds continually passing through. If the former is the case, there still remains the question of whether after their pause they resume full-scale migration or merely shift a short distance.

Pearson (1980:280–281) seems to have been the first to suggest that in habitats exhibiting little seasonality in South America there might also be significant shifts in the ranges of northern birds during their period of residency. He reported that in the lowlands of eastern Ecuador (Lemóncocha, Napo) there were six northern migrants (his table shows only five viz., Yellow Warbler (*Dendroica petechia*), Cerulean Warbler (*D. cerulea*), Blackpoll Warbler (*D. striata*), Summer Tanager (*Piranga rubra*), and Scarlet Tanager (*P. olivacea*)) that did not appear until December. He speculated that they had spent the earlier part of the winter "in the highlands or southern zones."

This explanation is questionable, at least for the region discussed. Summer and Scarlet tanagers have been recorded by others earlier in the season at nearby Archidona and/or Baeza, Napo; it is difficult to imagine they would not also have been at Limoncocha at the same time. The three *Dendroica* warblers have been recorded very few times in Ecuador. Pearson's failure to observe them at Limoncocha before December could have been an artifact because of the small population from which the sample was drawn. The evidence is much too slim to conclude, contra Morse (1989:220), that winter residents in moist South American habitats make major altitudinal shifts similar to those observed in areas of Central America where there is marked seasonality in the vegetation.

Long-distance Migrants

Those birds migrating the farthest are three of the six swallows. The Barn Swallow reaches the tip of the continent in Tierra del Fuego, where it is fairly abundant. The Cliff Swallow occurs occasionally in Tierra del Fuego (Clark, 1986:244) and the Bank Swallow has been seen once in southern Magallanes, Chile (Vuillumier, et al., 1993:86). These are also wide-ranging species with Barn and Bank Swallows having been found in all 13 countries and Cliff Swallow in all but the Guianas and Paraguay.

Altitudinal Preference

Relatively few migrants winter below 100 m. As has been long known, most occur in the foothills and on the slopes of the Andes, ranging up to 3,000 m, but the vast majority are below 2,000 m. Occasionally migrant taxa are seen much higher in the temperate zone as, for example, Swainson's Thrush (*Catharus ustulatus*) at 4,400 m in Mérida, Venezuela and the Bank Swallow at 4,300 m in La Paz, Bolivia, but for the most part these seem to be transients.

Hilty (1980:270) reported that on the Pacific slope of Colombia various wintering migrants replace one another altitudinally. This phenomenon is not evident in our sample, either from Colombia or elsewhere, but this is to be expected as the data are too generalized to reveal subtle differences.

If there is any latitudinal variation in the preferred altitudinal range of a species, perhaps reflecting changes in vegetation zones, it also is not revealed through our data, although such differences are to be expected in wide-ranging species.

Habitat Preference

The preferred winter habitat of all species, with two exceptions, is disturbed anthropogenic, thin, broad-leafed evergreen forest, forest edges, second growth, scrub, clearings, and occasionally gallery forest, but usually not dense, humid forest, either on the Andean slopes or in the Amazon Basin. The two exceptions to these generalities are Cerulean Warbler, which is found, almost exclusively, in the canopy of wet forest on the slopes of the Andes and Connecticut Warbler, which winters in second growth and edges, often within rainforest, on the borders of the Amazon Basin.

The scarcity of migrants in the mature lowland forest and their relative abundance at higher altitudes in successional and similar habitats has been frequently noted (e.g., Willis, 1966:215; Chipley, 1976:118; Hilty, 1980:270; Robinson, et al., 1986:2302; Askins, et al., 1990:31). However, we still know little or nothing about the habitat preferences of specific species, whether there are seasonal shifts in the use of habitats, or whether there may be some sexual segregation in habitat utilization, such has been documented in the Hooded Warbler (*Wilsonia citrina*) on the Yucatán Peninsula (Lynch, et al., 1985).

RELATIVE ABUNDANCE

Sixty-eight taxa of Passerines breeding in North America north of Mexico have been recorded from continental South America (Table 1). Of this number eight forms have been found at only a single location in northernmost Colombia or Venezuela and most of these reports were of single birds (Table 2). An additional two species have been found at only two sites and these were also from northern Colombia. All ten taxa reach their usual southern limits in Panama or the Lesser Antilles. Nine of these rarest Nearctic Passerines were recorded subsequent to 1968; the Blue-winged Warbler (*Vermivora pinus*), the tenth species, was collected in 1899.

There are eight forms that have been recorded from three or four locations on the continent (Table 2). Their usual ranges also terminate in southern Central America or the West Indies, but these birds show much less of a pattern of recent discovery and low frequency in South America than do the ten rarest forms. Members of this group have been documented from three to ten times and were first found on the continent between 1914 and 1970, with the three most recent (Yellow-rumped, Hooded, and Cape May Warblers) being reported first in 1965, 1968, and 1970 respectively.

That vagrants should occasionally extend farther south than the bird's usual range is not surprising. What is noteworthy is that although the study of South American birds began 350 years ago, nine of the ten rarest Nearctic Passerine migrants (those from one or two localities) were all first recorded after 1968. Or, if one expands the survey to include the eight forms found at three or four places, it means that 12 species of the 18 rarest have been discovered in the past 25–30 years. From another perspective, nearly 18 percent of all Passerine migrant forms in South America have been found in the last seven percent of South American ornithological history.

The question arises, why have most of the rarest migrants only been found in the last two or three decades? There seem to be two possible answers. The first is that there may have been recent changes in the migratory habits, leading some birds to extend their ranges to South America. Arendt (1992:167) has postulated a shift in the winter range of White-eyed Vireo (*Vireo griseus*) that is correlated with the destruction of habitat in the West Indies and one is tempted to equate these South American range extensions with the accelerated deforestation in Central America which began in the 1950s (Hartshorn, 1992). It is easy to construct a scenario whereby forest inhabiting winter residents, finding their preferred habitat shrinking, are forced farther south to seek refuge. However, no pattern to fit this scenario can be discerned among the 12 species recorded at the fewest sites in South America since 1965. Most breed in deciduous forests and winter in broadleaf evergreen or gallery forests, but one species, Townsend's Warbler (*Dendroica townsendi*), breeds in coniferous forests and another, Violet-green Swallow (*T. thalassina*) in open country, while the winter habitats also include open country, tropical deciduous forest, and coniferous forest. Except for their rarity in South America, there seems to be no common factor among all of them. Moreover, there are a number of species whose winter ranges terminate in southern Central America which have not yet been found in South America (see, for example, p. 100), although in general habits they resemble the 12 species already recorded there. One could argue that they do spill into South America but their rarity accounts for the fact they have not yet been detected. Nevertheless, again, there seems to be no common pattern which allows one to predict their appearance in South America or, more importantly, which might indicate that they will be forced south by the disappearance of Central American forests. Thus it must be concluded that there is no evidence that birds recently recorded for the first time on the South American continent are there because of the accelerating destruction of their winter habitats farther north.

A second possible explanation is that there has been a notable increase in the number of skilled observers, both amateur and professional, in recent decades and that this has resulted in the detection of previously unnoticed birds. There is, as far as I know, no way to document this increase, although it is known empirically. This explanation, even if unprovable, would seem to account for the 18 percent increase in recorded North American Passerine migrants in the last two and a half decades. The acceptance of this explanation should be tempered, however, by the knowledge that even though there were not as many observers earlier, there were a number of highly motivated, professional collectors who were either residents or long-term visitors in northern South America (e.g., the Olallas, Clarke-Macintyre, and Söderstrom in Ecuador; Carriker, Brown, von Sneidern, and Chapman in Colombia; Carriker, Klages, and the Phelps Collection personnel in Venezuela) and whose skills and long residency should have revealed the presence of even very rare visitants if they were present.

Thus, while it is likely that an increase in observers has led to the recent increase in recorded migrants, there still is a real possibility that we are witnessing small extensions in winter ranges.

SUMMER RESIDENTS

It was long ago noted by Chapman (1926) that large numbers of some species of northern shorebirds spend the boreal summer on the coast of Ecuador and do not breed while there. It is now evident that the phenomenon is also widespread on the continent among North American Passerine migrants. Of the 68 taxa occurring in South America, individuals of more than one-third (29 taxa) have been found on the continent during the northern summer (Table 3).

Although most of the records of residents during the boreal summer are unequivocal, there are three that are suspect, even though the taxa have been well documented at other times of the year. These are the Great Crested Flycatcher, Western Wood-Pewee, and Red-eyed Vireo.

The Great Crested Flycatcher was reportedly found once in Antioquia, Colombia on 17 June (Serna, 1980:65). As this species closely resembles *M. tyrannulus,* Wied's or Brown-crested Flycatcher, a resident species, there is a possibility that the Antioquia specimen was misidentified.

Similarly, the Western Wood-Pewee is known as a summer resident only on the basis of a single bird from Cundinamarca, Colombia (Nicéforo and Olivares, 1975:12). It very closely resembles *C. cinereus,* the Tropical Pewee, a local breeder, and might have been misidentified.

The third questionable record is that of a single Red-eyed Vireo (*V. o. olivaceus*) collected in Tolima, Colombia on 8 July (Serna, 1980:78). Because of the similarity of nominate *olivaceus* to the resident race, *vividior,* it should be reexamined.

The remaining 26 taxa offer no problems because their presence during the summer has been documented by more than one specimen or the identification of the species is unambiguous.

There seems to be no pattern as to which species will undergo an incomplete migration, leaving some individuals to summer on the continent. Representatives are found scattered among all the families, with the exception of the Turdidae, and the barely-present Mimidae and Bombycillidae. The absence of summering Turdidae is provocative, especially because of the fact that one species, Swainson's Thrush, has been reported at more localities than any species of migrant, save two, and the two other turdids have been reported at more places than 60% of all migrant Passerines. However, abundance, as measured by the number of localities at which a bird has been recorded, seems to have no role in determining whether or not a species will over-summer. Summer residents range from species reported from as few as four localities, e.g., the Common Yellowthroat and Hooded Warbler, to the Barn Swallow at 202 locations.

Table 3. Taxa occurring in South America during the boreal summer (June, July, August).

TAXON	COUNTRY	DATES
Tyrannus tyrannus	Colombia	1, 25 June
	Guyana	July
	Peru	July
	Bolivia	14 June
Tyrannus dominicensis	Colombia	27–29 June
	French Guana	Aug.
	Venezuela	24 July, 12, 23, 30 Aug.
Myiarchus crinitus *	Colombia	17 June
Empidonax traillii and *E. alnorum*	Colombia	15 Aug.
Contopus sordidulus *	Colombia	July
Contopus borealis	Colombia	June, 27 Aug.
Riparia riparia	French Guiana	8 June
	Uruguay	8 Aug.
	Peru	30 Aug.
Hirundo rustica	Colombia	15 June, 20 Aug.
	Venezula	year-round
	Guyana	11 June, 21 Aug.
	Surinam	5 June, 20 Aug.
	French Guiana	7 June, 2–22 Aug.
	Bolivia	22 June
	Argentina	year-round
	Brazil	10 June
Progne subis	Colombia	27, 31 Aug.
	Guyana	Aug.
	Brazil	2 Aug.
	Argentina	"summer"
Petrochelidon pyrrhonota	Venezuela	Aug.
Vireo o. olivaceus *	Colombia	8 July
Vireo o. flavoviridis	Colombia	7, 11 July, 12, 25 Aug.
Vireo altiloquus	Colombia	25 June, mid-Aug.
	Venezuela	Aug.
	French Guiana	8 June
Vireo flavifrons	Colombia	30 June
Mniotilta varia	Colombia	21 Aug.
	Peru	30 Aug.
Protonotaria citrea	Colombia	26–29 Aug.
Dendroica petechia	Colombia	26–29 Aug.
	Guyana	year-round
Dendroica cerulea	Ecuador	10 Aug.

Table 3. (cont.)

TAXON	COUNTRY	DATES
Dendroica striata	Chile	17 June
Dendroica discolor	Colombia	27 or 28 Aug.
Seiurus noveboracensis	Venezuela Argentina	15–21 June Aug.
Geothlypis trichas	Colombia	16 June
Wilsonia citrina	Colombia	between 15 June–15 July
Wilsonia canadensis	Ecuador Peru	9 Aug. July
Setophaga ruticilla	Colombia Venezuela Ecuador Peru	between 15 June–15 July 31 Aug. June 22, 24 June, July, 14–15 Aug.
Icterus spurius	Colombia	5 Aug.
Piranga olivacea	Colombia Guyana	12 July 10 June
Piranga rubra	Colombia	12 June, 8 July
Spiza americana	Guyana	July

* Questionable record.

Winter ranges seem also to have no role in forecasting which species will remain throughout the year. Continental summerers are found among the 12 forms that winter from the United States southward, among those eight that winter exclusively in South America, and among the 48 taxa whose winter ranges fall between these extremes.

Of the 26 taxa that are known with certainty to summer in South America, two (Purple Martin and Yellow-green Vireo) winter exclusively on the continent, and eight taxa (Eastern Kingbird, Olive-sided Flycatcher, Bank and Cliff Swallows, Cerulean, Blackpoll, and Canada Warblers, and Scarlet Tanager) are nearly exclusively South American winterers but with small numbers reaching Central America, almost always no farther north than Panama. The remaining 16 species have winter distributions well beyond South America. Thus it seems that birds whose winter ranges are exclusively, or nearly exclusively, South American, are no more likely to remain during the summer than more widely wintering forms.

The only substantial, and intuitively obvious, generalization that can be made is that Nearctic migrants that are infrequent in South America are unlikely to occur, or be found, there in the boreal summer. Of the 26, or possibly 29, taxa that have summered in South America, only three of these, the Prairie Warbler, Common Yellowthroat, and Hooded Warbler, are at the southern extremes of their ranges and have been recorded from four or fewer locations (or have been reported on eight or fewer occasions). Or, to put it differently, there are 17 taxa of the 68 under consideration that have been documented at four or fewer localities; of these 14 have never been found to summer. It is concluded that the summer residents are not left-behind remnants of small populations that somehow reached beyond their usual winter ranges.

Of particular interest are two of the summering species that are known to have bred while in South America and a third that, with more field work, will probably be found breeding.

The Barn Swallow was first reported as a summer bird in Colombia in 1912 (Chapman, 1917:502) and in Guyana in 1933 (Davis, 1954:446). It has been found summering in six other countries since that time. In the austral winters of 1980–81 and 1981–82 it was noted breeding in very small numbers in a colony at Laguna Mar Chiquita, Buenos Aires, Argentina (Martínez, 1983:83). There have been subsequent reports of breeding at three other locations in Buenos Aires province (Narosky and Di Giácomo, 1993:93).

Although the breeding in South America of a species that is ordinarily a northern migrant is noteworthy, in retrospect it might have been anticipated in a species such as the Barn Swallow, which occurs in large numbers, is highly gregarious even in its winter quarters, and whose nesting requirements are easily met. The Bank Swallow, Purple Martin, and possibly Cliff Swallow although apparently less numerous, would seem to be potential breeders also. A species such as American Redstart (*Setophaga ruticilla*), although found at many locations and having been recorded throughout the austral winter, would appear less likely to breed in South America because of its smaller population and more solitary behavior.

Not so clear-cut as a summer breeder is *Tyrannus dominicensis,* the Gray Kingbird. It is less unexpected in the boreal summer as it nests regularly throughout the Antilles, including nearby Trinidad and Tobago. An occasional specimen in breeding condition has been taken in Magdalena and La Guajira, northern Colombia, in March and May and in Bolívar and Guárico, southern and central Venezuela, in April. Although its presence in Colombia, Venezuela, and French Guiana has been reported from June through August, it has not been noted nesting during these summer months. Hilty and Brown (1986:520) indicate that the species is generally absent during the summer in the Caribbean coastal region of Colombia.

The Gray Kingbird appears to be a species in the process of extending its breeding range but as yet is not a significant element of the continental resident avifauna. Or it could be a species that is retreating from the continent, although this seems less likely. It is not known whether the summer birds are resident local breeders, birds that had bred on the continent and then shifted south, or northern birds that failed to make their return migration.

The Black-whiskered Vireo (*Vireo altiloquus*) breeds in the West Indies and on the islands close to mainland Venezuela. It is known to have summered in Colombia, Venezuela, and French Guiana. It probably will be found breeding on the continent in a manner similar to that of Gray Kingbird.

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SUMMARY

1. There are about 4,400 reports of 68 taxa of North American Passerines (Table 1) at approximately 1,260 sites (Fig. 1) in continental South America.
2. The breeding range of each taxon is broadly sketched while the South American distribution, dates of occurrence, and habitat preferences are given in detail.
3. Representatives of North American Passerine migrants have been found in all 13 South American countries, ranging from 66 taxa in Colombia to four in Uruguay (Fig. 70).
4. *Riparia riparia, Hirundo rustica,* and *Dendroica striata* have occurred in all 13 countries.
5. Twelve species (*Tachycineta thalassina, Dumetella carolinensis, Hylocichla mustelina, Helmitheros vermivorus, Vermivora pinus, Parula americana, Vireo philadelphicus, Dendroica dominica, D. discolor, D. townsendi, D. palmarum,* and *Wilsonia pusilla*) have been seen in only one country; eight of these records are based on a single observation.
6. One-third (22 species) of the Nearctic Passerines are so rare they have an insignificant role in the avifauna of South America.
7. The recent increase in skilled observers seems to have resulted in nine of the ten rarest migrants having been first recorded after 1968; there is no evidence that altered habitats in Central America have forced these species south.
8. It is predicted that eventually *Empidonax flaviventris, E. minimus, Tyrannus verticalis, T. forficatus, Oporornis tolmiei,* and *Passerina ciris* will be recorded in South America.
9. Seven taxa (*Myiodynastes luteiventris, Contopus sordidulus, Progne subis, Vireo o. olivaceus, V. o. flavoviridis, Oporornis agilis,* and *Doliochonyx oryzivorus*) winter exclusively in South America.
10. Species whose main wintering ranges are to the north and which reach their southern limits in northern South America seem to have well demarcated, rather than diffuse, southern borders.
11. Species wintering commonly in South America seem to have attenuated southern boundaries, but this may be an artifact owing to fewer observation sites in the south.
12. Six or seven of the species recorded from Colombia are transients, as are about five of those in Venezuela.

13. *Hirundo rustica* and *Petrochelidon pyrrhonota* migrate farthest, regularly reaching Tierra del Fuego.
14. Most migrants winter on the slopes and foothills of the Andes below 2,000 m, with some reaching 3,000 m; very few occur within the Amazon Basin.
15. The preferred winter habitat of 66 of the 68 taxa is disturbed, thin, broadleaf evergreen forest edges, second growth, and occasionally gallery forest.
16. *Dendroica cerulea* is found on the Andean slopes but in the crowns of thick, wet forest; *Oporornis agilis* occurs on the edges of the Amazon Basin in second growth, often within rainforest.
17. Representatives of more than one-third (26–29 taxa) of the North American migrant forms remain in South America during the boreal summers.
18. *Hirundo rustica* and *Tyrannus dominicensis* have been found breeding on a few occasions.

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